
Molecular

(TM)

Release 3.1a John F. Collins, Blocomputing Research Unit.
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Mparch_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 15:49:06 2000; Maspar time 223.07 Seconds

Tabular output not generated. 1197.397 Million cell updates/sec

Title: >US-08-951-733-13

Description: (1-2848) from US08951733.seq

Perfect Score: 2848 1 CACGCGTCGCGGCGAGCGCTG.....GATCGCGGCCACAGCGCTAT 2848

N.A. Sequence: Comp: GTGCGGAGGCGCGCTGCGCGAC.....CTACGGCGCGGCTCGCGATA

Scoring table: TABLE default

Gap 6

Mmatch STD : Dbase 0; Query 0

Searched: 176463 seqs, 46893068 bases x 2

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database:

n-issued
1:5A_COMB 2:5B_COMB 3:5C_COMB 4:5D_COMB 5:PCT9_COMB
6:backfilled1

Statistics: Mean 9.315; Variance 5.675; scale 1.641

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Query length	DB ID	Description	Pred. No.
1	67	2.4	7218	2	US-08-232-Sequence 14, Applicati	5.49e-25
2	49	1.7	7218	2	US-08-232-Sequence 14, Applicati	4.49e-14
3	42	1.5	215	1	US-08-238-Sequence 5, Applicatio	5.02e-10
4	44	1.5	965	3	US-08-388-Sequence 22, Applicati	6.74e-09
5	40	1.4	965	3	US-08-388-Sequence 5, Applicatio	3.11e-07
6	37	1.3	215	1	US-07-977-Sequence 243, Applicat	4.76e-01
7	25	0.9	68	1	US-08-471-Sequence 142, Applicat	4.76e-01
8	25	0.9	69	1	US-08-488-Sequence 94, Applicati	1.59e-01
9	26	0.9	74	4	PCT-US95-1 Sequence 94, Applicati	1.59e-01
10	25	0.9	74	4	PCT-US95-1 Sequence 100, Applicat	4.76e-01
11	25	0.9	74	4	US-08-488-Sequence 100, Applicat	1.59e-01
12	25	0.9	74	4	PCT-US95-1 Sequence 100, Applicat	1.59e-01
13	26	0.9	74	5	PCT-US95-1 Sequence 94, Applicati	1.59e-01
14	26	0.9	74	4	US-08-488-Sequence 100, Applicat	1.59e-01
15	26	0.9	74	4	US-08-488-Sequence 94, Applicati	1.59e-01
16	25	0.9	74	4	PCT-US95-1 Sequence 99, Applicati	4.76e-01
17	25	0.9	75	5	PCT-US95-1 Sequence 99, Applicati	4.76e-01
18	25	0.9	75	4	US-08-488-Sequence 99, Applicati	4.76e-01
19	25	0.9	75	4	US-08-488-Sequence 99, Applicati	4.76e-01

20	26	0.9	81	5	PCT-US95-1 Sequence 92, Applicati	1.59e-01
21	26	0.9	81	4	US-08-488-Sequence 92, Applicati	1.59e-01
22	25	0.9	81	4	US-08-488-Sequence 98, Applicati	4.76e-01
23	25	0.9	81	5	PCT-US95-1 Sequence 98, Applicati	4.76e-01
24	26	0.9	81	5	PCT-US95-1 Sequence 98, Applicati	1.59e-01
25	26	0.9	81	4	US-08-488-Sequence 92, Applicati	1.59e-01
26	26	0.9	81	5	PCT-US95-1 Sequence 92, Applicati	1.59e-01
27	26	0.9	81	4	US-08-488-Sequence 98, Applicati	1.59e-01
28	26	0.9	82	4	US-08-488-Sequence 97, Applicati	1.59e-01
29	26	0.9	82	5	PCT-US95-1 Sequence 97, Applicati	1.59e-01
30	26	0.9	82	5	PCT-US95-1 Sequence 97, Applicati	1.59e-01
31	26	0.9	82	4	US-08-488-Sequence 97, Applicati	1.59e-01
32	25	0.9	105	1	US-07-865-Sequence 13, Applicati	4.76e-01
33	25	0.9	242	2	US-08-273-Sequence 1, Applicatio	4.76e-01
34	25	0.9	1004	5	PCT-US95-0 Sequence 7, Applicatio	4.76e-01
35	25	0.9	1004	3	US-08-465-Sequence 8, Applicatio	4.76e-01
36	25	0.9	1288	3	US-08-440-Sequence 9, Applicatio	4.76e-01
37	25	0.9	1386	5	PCT-US95-0 Sequence 2, Applicatio	4.76e-01
38	25	0.9	1386	3	US-08-465-Sequence 3, Applicatio	4.76e-01
39	25	0.9	1611	5	PCT-US95-0 Sequence 3, Applicatio	4.76e-01
40	25	0.9	7175	4	US-08-223-Sequence 8, Applicatio	4.76e-01
41	25	0.9	7175	4	US-08-193-Sequence 8, Applicatio	4.76e-01
42	25	0.9	7175	3	US-08-455-Sequence 8, Applicatio	4.76e-01
43	25	0.9	7362	3	US-08-455-Sequence 7, Applicatio	4.76e-01
44	25	0.9	7362	4	US-08-193-Sequence 7, Applicatio	4.76e-01
45	25	0.9	7362	4	US-08-149-Sequence 7, Applicatio	4.76e-01

ALIGNMENTS

RESULT 1
ID US-08-232-463-14 STANDARD; DNA; UNC; 7218 BP.
AC xxxxxx
DT Sequence 14, Application US/08232463
DE Sequence 14, Application US/08232463
CC Patent No. 5670367
CC GENERAL INFORMATION:
CC APPLICANT: DORNER, F.
CC APPLICANT: SCHEIFLINGER, F.
CC APPLICANT: FALKNER, F. G.
CC TITLE OF INVENTION: RECOMBINANT FOMLOX VIRUS
CC NUMBER OF SEQUENCES: 32
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Foley & Lardner
CC STREET: 1800 diagonal Road, Suite 500
CC City: Alexandria
CC STATE: VA
CC COUNTRY: USA
CC ZIP: 22313-0299
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/232,463
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US/07/935,313
CC FILING DATE:
CC APPLICATION NUMBER: EP 91 114 300.6
CC FILING DATE: 26-AUG-1991
CC ATTORNEY/AGENT INFORMATION:
CC NAME: BENT, Stephen A.
CC REGISTRATION NUMBER: 29,768
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (703)836-9300
CC TELEPHONE: (703)683-4109
CC TELEX: 899149
CC INFORMATION FOR SEQ ID NO: 14:

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CC      SEQUENCE CHARACTERISTICS:  
CC      LENGTH: 7218 base pairs  
CC      TYPE: nucleic acid  
CC      STRANDEDNESS: single  
CC      TOPOLOGY: linear  
CC      IMMEDIATE SOURCE:  
CC      CLONE: pTZcpl-Fls  
SQ      SEQUENCE 7218 bp; 1944 A; 1491 C; 1486 G; 1929 T; 368 OTHER.  
  
Query Match          2.4%; Score 67; DB 2; Length 7218;  
Best Local Similarity 2.4%; Pred. No. 5,49e-25;  
Matches    9; Conservative 211; Mismatches 153; Indels 0; Gaps 0;  
  
Db   1055 GGAGCTGCAGATGATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT 1114  
     |||| | ||| : :: : : : : : : : : : : : : : : : : : : : : : : : : :  
Oy   921 GGAGGTTCCTCTCTGTGGCAGCGCGCACTCCACCACCGTGggcgccgacagcacgcg 980  
  
Db   1115 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1174  
     : :: : : : : : : : : : : : : : : : : : : : : : : : : :  
Oy   981 GGGGCCCATTCACATCGCGGCACACACGTCCTGGGAGCACGCTGTCCCCGGTGA 1040  
  
Db   1175 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1234  
     : : : : : : : : : : : : : : : : : : : : : : : : : :  
Oy   1041 CGCGAGACCAACGACTTCTCTACTCTCAGCGACAGACAGACAGCGTGGCGCTCTT 1100  
  
Db   1235 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1294  
Oy   1101 CCTACTCAGCTCTCTGAGCGCCAGCGCTGACTGGCGCTCGAGGCTCGTAGACACTT 1160  
  
Db   1295 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1354  
Oy   1161 TCTGGGTTCAGGCGCTGATGACAGGGAGCTCCCGCAGTTGCCCGCCGCCCCAAGCG 1220  
  
Db   1355 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1414  
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Oy   1221 CTACTGGCAAAATGGCGCCCTGTCTTCTGTGAGCTGCTTGGAACAACAGCGCAGTCCCCTA 1280  
  
Db   1415 YYYYYYYYYYYY 1427  
Oy   1281 CGGGGTGCTCCTC 1293  
  
RESULT      2  
ID US-08-232-463-14 STANDARD; DNA; UNC; 7218 BP.  
AC xxxxxx  
DT Sequence 14, Application US/08232463  
DE Sequence 14, Application US/08232463  
CC Patent No. 5670367  
CC GENERAL INFORMATION:  
CC APPLICANT: DORNER, F.  
CC APPLICANT: SCHEFLINGER, F.  
CC APPLICANT: FALKNER, F. G.  
CC TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS  
CC NUMBER OF SEQUENCES: 52  
CC CORRESPONDENCE ADDRESS:  
CC ADDRESSEE: Foley & Lardner  
CC STREET: 1800 Diagonal Road, Suite 500  
CC CITY: Alexandria  
CC STATE: VA  
CC COUNTRY: USA  
CC ZIP: 22313-0299  
CC COMPUTER READABLE FORM:  
CC MEDIUM TYPE: Floppy disk  
CC COMPUTER: IBM PC compatible  
CC OPERATING SYSTEM: PC-DOS/MS-DOS  
CC SOFTWARE: PatentIn Release #1.0, Version #1.25  
CC CURRENT APPLICATION DATA:  
CC APPLICATION NUMBER: US/08/232,463  
CC FILING DATE:  
CC CLASSIFICATION: 435  
CC PRIOR APPLICATION DATA:  
CC APPLICATION NUMBER: US/07/935,313
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CC      FILING DATE:
CC      APPLICATION NUMBER: EP 91 114 300.6
CC      FILING DATE: 26-AUG-1991
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: BENT, Stephen A.
CC      REGISTRATION NUMBER: 29,768
CC      REFERENCE/DOCKET NUMBER: 30472/114 IMMU
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (703)836-9300
CC      TELEFAX: (703)683-4109
CC      TELEX: 899149
CC      INFORMATION FOR SEQ ID NO: 14:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 7218 base pairs
CC      TYPE: nucleic acid
CC      STRANDEDNESS: single
CC      TOPOLOGY: linear
CC      IMMEDIATE SOURCE:
CC      CLONE: pTZ9pt-Fls
CC      SEQUENCE 7218 BP; 1944 A; 1491 C; 1486 G; 1929 T; 368 OTHER.
SQ

Query Match          1.7%; Score 49; DB 2; Length 7218;
Best Local Similarity 2.0%; Pred. No. 4,49e-16;
Matches 6; Conservative 165; Mismatches 122; Indels 0; Gaps 0;

Db 1150 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1209
Cc 2079 CCGGCCCGCGTCGATGACGACGCTGAACAGCGCTCACCTCGAGGTGACAGCCTC 2020
Cc 1210 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1269
Cc 2019 GGCCTCTTCTCTGCGGAGCTGCGCTGCCACGACGATGTCACATGTCACAAATCG 1960
Cc 1270 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1329
Cc 1959 CCGGACGCCGTCAGAGCTGGGAGATGAACGAGTCGTGACGTCAGCAGCGGGGCTCGC 1900
Cc 1899 TTCCGAGTGCCTGCGATGCTGCTCGACAGCTCCGCGAGCTGCACCTCTCAAGTG 1840
Cc 1390 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1389
Cc 1839 CTGTGATTCAAATGCTTGCAACTGCTCCAGACACTCTCCGGTAGAATA 1787
Cc

RESULT      3
ID US-08-238-163-5 STANDARD; DNA; UNC; 215 BP.
AC xxxxxx
Dr
DE Sequence 5, Application US/08238163
DE Sequence 5, Application US/08238163
DE Patent No. 5569830
Cc GENERAL INFORMATION:
Cc APPLICANT: BENNETT, Alan
Cc APPLICANT: LABAVITCH, John M.
Cc APPLICANT: POWELL, Ann
Cc APPLICANT: STOLT, Henrik
Cc TITLE OF INVENTION: PLANT INHIBITORS OF FUNGAL
Cc NUMBER OF SEQUENCES: 24
Cc CORRESPONDENCE ADDRESS:
Cc ADDRESS: Townsend and Townsend Kourie and Crew
Cc STREET: Steuart Street Tower, One Market Plaza
Cc CITY: San Francisco
Cc STATE: California
Cc COUNTRY: US
Cc ZIP: 94105-1493
Cc COMPUTER READABLE FORM:
Cc MEDIUM TYPE: floppy disk
Cc COMPUTER: IBM PC compatible
Cc OPERATING SYSTEM: PC-DOS/MS-DOS
Cc SOFTWARE: Patentin Release #1.0, Version #1.25

```

[illegible]

CC NAME: Hanson, No. 5795961man D.
CC REGISTRATION NUMBER: 30,946
CC REFERENCE/DOCKET NUMBER: LUD 5409
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 212-688-9200
CC TELEFAX: 212-838-3884
CC INFORMATION FOR SEQ ID NO: 22:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 965 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 965 BP; 192 A; 170 C; 226 G; 200 T; 177 OTHER.

Query Match 1.4%; Score 40; DB 3; Length 965;
Best Local Similarity 11.8%; Pred. No. 6,74e-09;
Matches 15; Conservative 66; Mismatches 46; Indels 0; Gaps 0;

DB 826 YNKGKRVMTDSSNSRSVTAADTAIVYCVGRSYDSDGDYWGTTVTVSSHUVKDM 885
OY 92 CGGTGGCTCCCTGCGCCAGCCAGCTACCGCGAGTGTGCGCGCCGACCTTCGTGC 151
DB 886 TSSSSAVGDVATTCRSSTTHGNGNTYWKAKAKYRVSNRSGVSRGSGSGDTTSSD 945
OY 152 GCGCGCTGGGGCCCCAGGGCTGGCTGTGTGCGAGCGGGAGCCGCGGCTTTCGCG 211
DB 946 ATYYCGT 952
OY 212 CGCTGT 218

RESULT 6
ID US-08-238-163-5 STANDARD; DNA; UNC; 215 BP.
AC xxxxxx

DE Sequence 5, Application US/08238163
CC Sequence 5, Application US/08238163
CC Patent No. 5569830
CC GENERAL INFORMATION:
CC APPLICANT: BENNETT, Alan
CC APPLICANT: LABAVITCH, John M.
CC APPLICANT: POWELL, Ann
CC APPLICANT: STOTZ, Henrik
CC TITLE OF INVENTION: PLANT INHIBITORS OF FUNGAL
CC TITLE OF INVENTION: POLYGALACTURONASES AND THEIR USE TO CONTROL FUNGAL DISEASE
CC NUMBER OF SEQUENCES: 24
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend Kourile and Crew
CC STREET: Stewart Street Tower, One Market Plaza
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: US
CC ZIP: 94105-1493
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/238,163
CC FILING DATE: 03-MAY-1994
CC CLASSIFICATION: 800
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Bastian, Kevin L.
CC REGISTRATION NUMBER: 34,774
CC REFERENCE/DOCKET NUMBER: 2307E-540
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 543-9600
CC TELEFAX: (415) 543-5043
CC INFORMATION FOR SEQ ID NO: 5:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 215 base pairs

CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: misc.feature
CC LOCATION: 1..215
CC OTHER INFORMATION: /standard_name="Deduced amino acid
CC OTHER INFORMATION: sequence of GP1F from bean."
CC SEQUENCE 215 BP; 15 A; 8 C; 25 G; 26 T; 141 OTHER.

Query Match 1.3%; Score 37; DB 1; Length 215;
Best Local Similarity 14.2%; Pred. No. 3.11e-07;
Matches 22; Conservative 64; Mismatches 68; Indels 1; Gaps 1;

DB 50 YRVNDSGNKXSSANYVNGVANNVGAKTHTYTHRVSGADSKTYDYSNAGTSSNGC 109
CP 1139 CGAGGCCAGTAGGCTGGGCTCAGAGAGCTGAGTGAAGAGAGGCCGCCAGCTGCTCC 1080
DB 110 TDGNSGADSYSSSKTA-MTSRNRGTGTANNAVDSRNMGDAVSGDKTKHAKNSADK 168
CP 1079 TTGTGCTGAGGAGTAGAGAGAAGTGTGTGCTGCGCGCTACACCGGGGAGACAAGCGGTG 1020
DB 169 VGSKNNGDRNNRYGTGTSKSNVSNNGGKRPYSS 203
CP 1019 TCCAGGAGCTGTGTGCGCGCATGTGATGGGG 985

RESULT 7
ID US-07-977-284A-243 STANDARD; DNA; UNC; 68 BP.
AC xxxxxx

DE Sequence 243, Application US/07977284A
CC Sequence 243, Application US/07977284A
CC Patent No. 5558988
CC GENERAL INFORMATION:
CC APPLICANT: PROCKOP, Darwin J.
CC APPLICANT: Ala-Kokko, Leena
CC APPLICANT: Williams, Charlene J.
CC APPLICANT: Rytvanien, Pertti
CC APPLICANT: Baldwin, Clinton
CC APPLICANT: Hopkinson, Ian
CC APPLICANT: Ahmed, Niofer Nina
CC TITLE OF INVENTION: METHODS OF DETECTING A GENETIC
CC TITLE OF INVENTION: PREDISPOSITION FOR OSTEOARTHRITIS
CC NUMBER OF SEQUENCES: 261
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Woodcock, Washburn, Kurtz, Mackiewicz & No. 5558988715
CC STREET: One Liberty Place, 46th floor
CC CITY: Philadelphia
CC STATE: PA
CC COUNTRY: USA
CC ZIP: 19103
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Wordperfect 5.1
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/07/977,284A
CC FILING DATE: 13-NOV-1992
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER:
CC FILING DATE:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Deluca, Mark
CC REGISTRATION NUMBER: 33,229
CC REFERENCE/DOCKET NUMBER: TJU-0697
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (215) 568-3100
CC TELEFAX: (215) 568-3439
CC INFORMATION FOR SEQ ID NO: 243:

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RESULT      9
ID          US-08-488-161-94 STANDARD; DNA; UNC; 74 BP.
AC          xxxxxx
DT
DE          Sequence 94, Application US/08488161
CC          Sequence 94, Application US/08488161
CC          Patent No. 5885577
CC          GENERAL INFORMATION:
CC          APPLICANT: Alvarez, Vernon L.
CC          TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC          TITLE OF INVENTION: Peptide Libraries
CC          NUMBER OF SEQUENCES: 103
CC          CORRESPONDENCE ADDRESS:
CC          ADDRESSEE: Pennie & Edmonds
CC          STREET: 1155 Avenue of the Americas
CC          CITY: New York
CC          STATE: New York
CC          COUNTRY: USA
CC          ZIP: 10036
CC          COMPUTER READABLE FORM:
CC          MEDIUM TYPE: Floppy disk
CC          COMPUTER: IBM PC compatible
CC          OPERATING SYSTEM: PC-DOS/MS-DOS
CC          SOFTWARE: PatentIn Release #1.0, Version #1.30
CC          CURRENT APPLICATION DATA:
CC          APPLICATION NUMBER: US/08/488,161
CC          FILING DATE: 07-JUN-1995
CC          CLASSIFICATION: 436
CC          ATTORNEY/AGENT INFORMATION:
CC          NAME: Mistrock, S. Leslie
CC          REGISTRATION NUMBER: 18,872
CC          REFERENCE/DOCKET NUMBER: 1101-176
CC          TELECOMMUNICATION INFORMATION:
CC          TELEPHONE: (212) 790-9090
CC          TELEFAX: (212) 869-9741/8864
CC          TELEX: 66141 PENNIE
CC          INFORMATION FOR SEQ ID NO: 94:
CC          SEQUENCE CHARACTERISTICS:
CC          LENGTH: 74 base pairs
CC          TYPE: nucleic acid
CC          STRANDEDNESS: single
CC          TOPOLOGY: linear
CC          MOLECULE TYPE: DNA
SQ          SEQUENCE 74 BP; 3 A; 4 C; 3 G; 1 T; 63 OTHER.

Query Match      0.98; Score 26; DB 4; Length 74;
Best Local Similarity 11.48; Pred. No. 1,59e-01;
Matches      8; Conservative 19; Mismatches 43; Indels 0; Gaps 0;

Db              3 GAGNNBNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNN 62
            ||| : : : : : : : : : : : : : : : : : : : : : : : :
OY 2448 GAGCTCCTCCTCGAATGAGGCACACACTGGCCCTTCTGACGTCTTCTACGCTTCATGTG 2507
Db              63 BNNBNAGGCC 72
            : : : : ||||
OY 2508 CCACCAGCGCC 2517

RESULT      10
ID          PCT-US95-11934-94 STANDARD; DNA; UNC; 74 BP.
AC          xxxxxx
DT
DE          Sequence 94, Application PC/TUS9511934
CC          Sequence 94, Application PC/TUS9511934
CC          GENERAL INFORMATION:
CC          APPLICANT: Cyrogen Corporation
CC          TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC          TITLE OF INVENTION: Peptide Libraries
CC          NUMBER OF SEQUENCES: 103
CC          CORRESPONDENCE ADDRESS:
CC          ADDRESSEE: Pennie & Edmonds

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Query Match 0.9% Score 25; DB 4; Length 74;
Best Local Similarity 7.7% Pred. No. 4.76e-01;
Matches 5; Conservative 20; Mismatches 40; Indels 0; Gaps 0;

DB 6 VNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 65
QY 945 CCACTCCACCCATCGTGGCCGCCAGCACAGCGGGCCCCCATCCACATCGCGCC 1004

DB 66 ACCAC 70
11111
QY 1005 ACCAC 1009

RESULT 13
ID PCT-US95-11934-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 100, Application PC/TUS9511934
CC Sequence 100, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: CytoGen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 100:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP: 6 A; 6 C; 1 G; 1 T; 60 OTHER.

Query Match 0.9% Score 26; DB 5; Length 74;
Best Local Similarity 10.3% Pred. No. 1.59e-01;
Matches 7; Conservative 20; Mismatches 41; Indels 0; Gaps 0;

DB 3 AGAVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
CP 541 AGAGCGGGCGGTGCGACGAGTGAACACGAGCTGTCGCCACGCGGCGAGCA 482

DB 63 VNNACAC 70
11111
CP 481 GCGCCAC 474

RESULT 14
ID PCT-US95-11934-94 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx
DT

DE Sequence 94, Application PC/TUS9511934
CC Sequence 94, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: CytoGen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 94:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP: 3 A; 4 C; 3 G; 1 T; 63 OTHER.

Query Match 0.9% Score 26; DB 5; Length 74;
Best Local Similarity 11.4% Pred. No. 1.59e-01;
Matches 8; Conservative 19; Mismatches 43; Indels 0; Gaps 0;

DB 3 GAGNNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBN 62
CP 540 GAGCGGCGACGTGCGACGAGTGAACACGAGCTGTCGCCACGCGGCGAGCAG 481

DB 63 BNNBNACGCC 72
11111
CP 480 CCGCCACGCC 471

RESULT 15
ID US-08-488-161-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 100, Application US/08488161
CC Sequence 100, Application US/08488161
CC Patent No. 5885577
CC GENERAL INFORMATION:
CC APPLICANT: Alvarez, Vernon L.
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036
CC COMPUTER READABLE FORM:

CC MEDIUM TYPE: floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/488,161
CC FILING DATE: 07-JUN-1995
CC CLASSIFICATION: 436
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-176
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 100:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA
CC SEQUENCE 74 BP; 6 A; 6 C; 1 G; 1 T; 60 OTHER.
SQ

Query Match 0.98; Score 26; DB 4; Length 74;
Best Local Similarity 10.38; Pred. No. 1.59e-01;
Matches 7; Conservative 20; Mismatches 41; Indels 0; Gaps 0;

Db 3 AGAVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
CP 541 AGAGCGCGGACGAGGTGACAGCAGGTGTCGCCACGCGGCGACGACGA 482
Db 63 VNNACCAC 70
CP 481 GCCCCAC 474

Search completed: Tue Jun 27 15:57:04 2000
Job time : 478 secs.

WORLDWIDE
(TM)

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MPSrch_PP protein - protein database search, using Smith-Waterman algorithm
Run on: Tue Jun 27 14:57:14 2000; MasPar time 11.54 Seconds
Tabular output not generated. 834.872 Million cell updates/sec

Title: >US-08-951-733-14
Description: (1-949) from US08951733.pep
Perfect Score: 7113
Sequence: 1 HASGQRCVLTMTWALAPAT.....PVEDEALGTAFVQMPAHGL 949

Scoring table: PAM 150
Gap 11

Searched: 106580 seqs, 10152877 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: a-issued
1:5h_COMB 2:5h_COMB 3:PCT9_COMB 4:backfile1

Statistics: Mean 36.808; Variance 182.308; scale 0.202

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	125	1.8	402	1	US-08-480-Sequence 8, Applicatio	9.75e-01
2	125	1.8	402	2	US-08-901-Sequence 8, Applicatio	9.75e-01
3	125	1.8	402	1	US-08-462-Sequence 21, Applicati	9.75e-01
4	125	1.8	402	1	US-07-901-Sequence 11, Applicati	9.75e-01
5	125	1.8	402	2	US-08-459-Sequence 6, Applicati	9.75e-01
6	125	1.8	402	1	US-08-278-Sequence 21, Applicati	9.75e-01
7	125	1.8	402	1	US-08-447-Sequence 29, Applicati	9.75e-01
8	125	1.8	402	1	US-08-155-Sequence 21, Applicati	9.75e-01
9	125	1.8	402	1	US-08-451-Sequence 21, Applicati	9.75e-01
10	125	1.8	402	1	US-08-643-Sequence 21, Applicati	9.75e-01
11	125	1.8	402	1	US-08-479-Sequence 8, Applicatio	9.75e-01
12	125	1.8	402	1	US-08-147-Sequence 29, Applicati	9.75e-01
13	125	1.8	402	1	US-07-841-Sequence 8, Applicatio	9.75e-01
14	125	1.8	402	3	PCT-US93-1-Sequence 21, Applicati	9.75e-01
15	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
16	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
17	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
18	125	1.8	402	1	US-08-643-Sequence 21, Applicati	9.75e-01
19	125	1.8	402	1	US-08-406-Sequence 21, Applicati	9.75e-01
20	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
21	125	1.8	402	3	PCT-US93-0-Sequence 11, Applicati	9.75e-01
22	125	1.8	402	2	US-08-449-Sequence 29, Applicati	9.75e-01
23	125	1.8	402	1	US-08-206-Sequence 4, Applicatio	9.75e-01

24	125	1.8	402	2	US-08-445-Sequence 21, Applicati	9.75e-01
25	125	1.8	402	3	PCT-US93-0-Sequence 6, Applicatio	9.75e-01
26	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
27	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
28	118	1.7	399	1	US-08-406-Sequence 23, Applicati	2.82e+00
29	118	1.7	399	1	US-07-901-Sequence 13, Applicati	2.82e+00
30	118	1.7	399	1	US-08-278-Sequence 23, Applicati	2.82e+00
31	118	1.7	399	1	US-08-480-Sequence 10, Applicatio	2.82e+00
32	118	1.7	399	2	US-08-459-Sequence 8, Applicatio	2.82e+00
33	118	1.7	399	3	PCT-US93-0-Sequence 6, Applicatio	2.82e+00
34	118	1.7	399	3	PCT-US93-0-Sequence 23, Applicati	2.82e+00
35	118	1.7	399	3	PCT-US93-0-Sequence 23, Applicati	2.82e+00
36	118	1.7	399	3	PCT-US93-0-Sequence 13, Applicati	2.82e+00
37	118	1.7	399	3	PCT-US93-0-Sequence 23, Applicati	2.82e+00
38	118	1.7	399	3	PCT-US93-1-Sequence 10, Applicati	2.82e+00
39	118	1.7	399	1	US-08-643-Sequence 23, Applicati	2.82e+00
40	118	1.7	399	1	US-08-447-Sequence 27, Applicati	2.82e+00
41	118	1.7	399	1	US-08-451-Sequence 23, Applicati	2.82e+00
42	118	1.7	399	1	US-08-643-Sequence 23, Applicati	2.82e+00
43	118	1.7	399	2	US-08-449-Sequence 27, Applicati	2.82e+00
44	118	1.7	399	1	US-08-479-Sequence 10, Applicati	2.82e+00
45	118	1.7	399	3	PCT-US92-0-Sequence 23, Applicati	2.82e+00

ALIGNMENTS

RESULT	ID	US-08-480-528A-8	STANDARD;	PRT;	402 AA.
1	CC	Sequence 8, Application US/08480528A			
2	CC	Patent No. 5652118			
3	CC	GENERAL INFORMATION:			
4	CC	APPLICANT: OPPERMAN, HERMANN			
5	CC	APPLICANT: OZKAYNAK, ENGIN			
6	CC	APPLICANT: KUBERASAMPATH, THANGAVEL			
7	CC	APPLICANT: RUEGER, DAVID C.			
8	CC	APPLICANT: PANG, ROY H.L.			
9	CC	APPLICANT: COHEN, CHARLES M.			
10	CC	TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS			
11	CC	NUMBER OF SEQUENCES: 13			
12	CC	CORRESPONDENCE ADDRESS:			
13	CC	ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES			
14	CC	STREET: 45 SOUTH STREET			
15	CC	CITY: HOPKINTON			
16	CC	STATE: MA			
17	CC	COUNTRY: USA			
18	CC	ZIP: 01748			
19	CC	COMPUTER READABLE FORM:			
20	CC	MEDIUM TYPE: Floppy disk			
21	CC	COMPUTER: IBM PC compatible			
22	CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
23	CC	SOFTWARE: Patentin Release #1.0, Version #1.30			
24	CC	CURRENT APPLICATION DATA:			
25	CC	APPLICATION NUMBER: US/08/480,528A			
26	CC	FILING DATE: 07-JUN-1995			
27	CC	CLASSIFICATION: 435			
28	CC	ATTORNEY/AGENT INFORMATION:			
29	CC	NAME: FENTON ESQ., GILLIAN M.			
30	CC	REGISTRATION NUMBER: 36,508			
31	CC	REFERENCE/DOCKET NUMBER: CRP-076FW			
32	CC	TELECOMMUNICATION INFORMATION:			
33	CC	TELEPHONE: (617) 248-7560			
34	CC	TELEFAX: (617) 248-7100			
35	CC	INFORMATION FOR SEQ ID NO: 8:			
36	CC	SEQUENCE CHARACTERISTICS:			
37	CC	LENGTH: 402 amino acids			
38	CC	TYPE: amino acid			

CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44764 MW; 803627 CN;
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALCALGGGPGRLPP-GC-PQRLG-ARERDVOREILAVGLPGR-PRPRAPPAAS 67
Qy 194 GPPLYOLGAATQA-RPPPHASGPRRLGCERAMNHSVREAGVPLGLPAPGARRRGGSASR 252
Db 68 RLP 70
Qy 253 SLP 255
Oy 253 SLP 255
RESULT 2
TD US-08-901-200A-8 STANDARD: PRT; 402 AA.
XX
AC xxxxxx
XX
XX
XX
DE Sequence 8, Application US/08901200A
XX
CC Sequence 8, Application US/08901200A
CC Patent No. 5854071
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS
CC NUMBER OF SEQUENCES: 15
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/901,200A
CC FILING DATE: 28-JUL-1997
CC CLASSIFICATION: 530
CC ATTORNEY/AGENT INFORMATION:
CC NAME: MEYERS, THOMAS C.
CC REGISTRATION NUMBER: 36,989
CC REFERENCE/DOCKET NUMBER: CRP-076DV2
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEO ID NO: 8:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44698 MW; 800499 CN;
Query Match 1.8%; Score 125; DB 2; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALCALGGGPGRLPP-GC-PQRLG-ARERDVOREILAVGLPGR-PRPRAPPAAS 67

Qy 194 GPPLYOLGAATQA-RPPPHASGPRRLGCERAMNHSVREAGVPLGLPAPGARRRGGSASR 252
Db 68 RLP 70
Qy 253 SLP 255
Oy 253 SLP 255
RESULT 3
ID US-08-462-623-21 STANDARD: PRT; 402 AA.
XX
AC xxxxxx
XX
XX
XX
DE Sequence 21, Application US/08462623
CC
CC Patent No. 5739107
CC GENERAL INFORMATION:
CC APPLICANT: COHEN, CHARLES M.
CC APPLICANT: CHARLETTE, MARC F.
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: SMART, JOHN E.
CC TITLE OF INVENTION: MORPHOGEN TREATMENT OF GASTROINTESTINAL
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/462,623
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/445,882
CC FILING DATE: 22-MAY-1995
CC ATTORNEY/AGENT INFORMATION:
CC NAME: FENTON ESQ., GILLIAN M.
CC REGISTRATION NUMBER: 36,508
CC REFERENCE/DOCKET NUMBER: CRP-074CN
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEO ID NO: 21:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44764 MW; 803627 CN;
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALCALGGGPGRLPP-GC-PQRLG-ARERDVOREILAVGLPGR-PRPRAPPAAS 67
Qy 194 GPPLYOLGAATQA-RPPPHASGPRRLGCERAMNHSVREAGVPLGLPAPGARRRGGSASR 252

Db 68 RLP 70
QY 253 SLP 255

RESULT 4
ID US-07-901-703-11 STANDARD: PRT; 402 AA.
XX xxxxxx

Sequence 11, Application US/07901703

CC Sequence 11, Application US/07901703
CC Patent No. 5344654
CC GENERAL INFORMATION:
CC APPLICANT: RUEGER, DAVID C
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZAKYNAK, ENGIN
CC TITLE OF INVENTION: PROSTHETIC DEVICES HAVING ENHANCED
CC TITLE OF INVENTION: OSTEOGENIC PROPERTIES
CC NUMBER OF SEQUENCES: 22
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: EXCHANGE PLACE, 53 STATE STREET
CC CITY: BOSTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 02109

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/07/901,703
CC FILING DATE: 19920616
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, ESO, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC INFORMATION FOR SEQ ID NO: 11:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: AMINO ACID
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA; 44698 MW; 800499 CN;

Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9,75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 68 RLP 70
QY 253 SLP 255

RESULT 5
ID US-08-459-346-6 STANDARD: PRT; 402 AA.
XX xxxxxx
DT

XX DE Sequence 6, Application US/08459346
XX CC Sequence 6, Application US/08459346
XX CC Patent No. 5834179
XX CC GENERAL INFORMATION:
XX CC APPLICANT: JONES, WILLIAM K
XX CC APPLICANT: TUCKER, RONALD F
XX CC APPLICANT: RUEGER, DAVID C
XX CC APPLICANT: OPPERMAN, HERMANN
XX CC APPLICANT: OZAKYNAK, ENGIN
XX CC APPLICANT: KUBERASAMPATH, THANGAVEL
XX CC TITLE OF INVENTION: NOVEL MORPHOGENIC PROTEIN COMPOSITIONS
XX CC TITLE OF INVENTION: OF MATTER
XX CC NUMBER OF SEQUENCES: 23
XX CC CORRESPONDENCE ADDRESSES:
XX CC ADDRESSEE: PATENT ADMINISTRATOR/CREATIVE BIOMOLECULES,
XX CC ADDRESSEE: INC.
XX CC STREET: 35 SOUTH STREET
XX CC CITY: HOPKINTON
XX CC STATE: MA
XX CC COUNTRY: USA
XX CC ZIP: 01748

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/459,346
CC FILING DATE: 19920616
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/029,335
CC FILING DATE: 04-MAR-1993
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/971,091
CC FILING DATE: 03-NOV-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: 27,829
CC FILING DATE: 16-SEP-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/938,336
CC FILING DATE: 08-AUG-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/923,780
CC FILING DATE: 31-JUL-1992
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-081CP
CC INFORMATION FOR SEQ ID NO: 6:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA; 44698 MW; 800499 CN;

Query Match 1.8%; Score 125; DB 2; Length 402;
Best Local Similarity 39.7%; Pred. No. 9,75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 68 RLP 70
QY 253 SLP 255

RESULT 6

LD US-08-278-729A-21 STANDARD; PRT; 402 AA.
XX
AC xxxxxx
XX
XX
XX
DE Sequence 21, Application US/08278729A
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CC Sequence 21, Application US/08278729A
CC Patent No. 5650276
CC GENERAL INFORMATION:
CC APPLICANT: SMART, JOHN
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOBRINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/278,729A
CC FILING DATE: 20-JUL-1994
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER Esq., EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-058CPTW
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEQ ID NO: 21:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA; 44764 MW; 803627 CN;
SQ
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9,756-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLACALGSGGPGRLG-PC-POBRLG-AREBRDVOEILLAVGLPGR-PPRAPPAS 67
Qy 194 GPLYQDGAATGA-RPPHAGSPRRRLCCERAMHNSYRAGYPLGLPAPGARRRGSSASR 252
Db 68 RLP 70
Qy 253 SLP 255
RESULT 7
ID US-08-447-570-29 STANDARD; PRT; 402 AA.
XX
AC xxxxxx
XX
DT
XX
DE Sequence 29, Application US/08447570
XX

CC Sequence 29, Application US/08447570
CC Patent No. 5714589
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC TITLE OF INVENTION: OSTEOGENIC DEVICES
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: 53 STATE STREET
CC CITY: BOSTON
CC STATE: MASSACHUSETTS
CC COUNTRY: U.S.A.
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/447,570
CC FILING DATE: 21-FEB-1992
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 810,560
CC FILING DATE: 20-DEC-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 827,052
CC FILING DATE: 28-JAN-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 660,162
CC FILING DATE: 22-FEB-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,988
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,849
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 616,374
CC FILING DATE: 21-NOV-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 600,024
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 599,543
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 579,865
CC FILING DATE: 07-SEP-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 569,920
CC FILING DATE: 20-AUG-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 483,913
CC FILING DATE: 22-FEB-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 422,613
CC FILING DATE: 17-OCT-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 315,342
CC FILING DATE: 23-FEB-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 232,630
CC FILING DATE: 15-AUG-1988
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 179,460
CC FILING DATE: 08-APR-1988
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R.
CC

CC	TOPOLOGY:	linear
CC	MOLECULE TYPE:	protein
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Oy	253 SLP 255	
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CC	Patent No. 5741641	
CC	GENERAL INFORMATION:	
CC	APPLICANT: SMART, JOHN	
CC	APPLICANT: OPPERMAN, HERMAN	
CC	APPLICANT: OZKAYNAK, ENGİN	
CC	APPLICANT: KUBERSAMPATH, THANGAVEL	
CC	APPLICANT: RUEGER, DAVID C.	
CC	APPLICANT: PANG, ROY H. I.	
CC	APPLICANT: COHEN, CHARLES M.	
CC	TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD	
CC	NUMBER OF SEQUENCES: 33	
CC	CORRESPONDENCE ADDRESSES:	
CC	ADDRESS: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES	
CC	STREET: 45 SOUTH STREET	
CC	CITY: HOPKINTON	
CC	STATE: MA	
CC	COUNTRY: USA	
CC	ZIP: 01748	
CC	COMPUTER READABLE FORM:	
CC	MEDIUM TYPE: Floppy disk	
CC	COMPUTER: IBM PC compatible	
CC	OPERATING SYSTEM: PC-DOS/MS-DOS	
CC	SOFTWARE: PatentIn Release #1.0, Version #1.30	
CC	CURRENT APPLICATION DATA:	
CC	APPLICATION NUMBER: US/08/451,953A	
CC	FILING DATE: 26-MAR-1995	
CC	CLASSIFICATION: 435	
CC	ATTORNEY/AGENT INFORMATION:	
CC	NAME: PIRCHER ESQ., EDMUND R.	
CC	REGISTRATION NUMBER: 27,829	
CC	REFERENCE/DOCKET NUMBER: CRP-058CN	
CC	TELECOMMUNICATION INFORMATION:	
CC	TELEPHONE: (508) 435-9001	
CC	TELEFAX: (508) 435-6951	
CC	INFORMATION FOR SEQ ID NO: 21:	
CC	SEQUENCE CHARACTERISTICS:	
CC	LENGTH: 402 amino acids	
CC	TYPE: amino acid	
CC	TOPOLOGY: linear	
CC	MOLECULE TYPE: protein	
CC	SEQUENCE	402 AA; 44764 MW; 803627 CN;
Query Match	1.8%; Score 125;	DB 1; Length 402;
Best Local Similarity	39.7%;	Pred. No. 9.75e-01;
Matches	25; Conservative	12; Mismatches 21; Indels 5; Gaps 5;

Sequence 29, Application US/08147023
Patent No. 5468845
GENERAL INFORMATION:
APPLICANT: OPPERMAN, HERMANN
APPLICANT: OZKAYNAK, ENGIN
APPLICANT: KUBERASAMPATH, THANGAVEL
APPLICANT: RUEGER, DAVID C.
APPLICANT: PANG, ROY H.L.
TITLE OF INVENTION: OSTEOGENIC DEVICES
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: TESTA, HURWITZ & THIBEAULT
STREET: 53 STATE STREET
CITY: BOSTON
STATE: MASSACHUSETTS
COUNTRY: U.S.A.
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/147,023
FILING DATE: 21-FEB-1992
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 810,560
FILING DATE: 20-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 827,052
FILING DATE: 28-JAN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 660,162
FILING DATE: 22-FEB-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 621,988
FILING DATE: 04-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 621,849
FILING DATE: 04-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 616,374
FILING DATE: 21-NOV-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 600,024
FILING DATE: 18-OCT-1990
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FILING DATE: 18-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 579,865
FILING DATE: 07-SEP-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 569,920
FILING DATE: 20-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 483,913
FILING DATE: 22-FEB-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 422,613
FILING DATE: 17-OCT-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 315,342
FILING DATE: 23-FEB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 232,630
FILING DATE: 15-AUG-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 179,460
FILING DATE: 08-APR-1988
ATTORNEY/AGENT INFORMATION:
NAME: PITCHER, EDMUND R.

REGISTRATION NUMBER: 27,829
REFERENCE/DOCKET NUMBER: CRP-001CP6
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/248-7000
TELEFAX: 617/248-7100
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 402 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE 402 AA; 44698 MW; 800499 CN;
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALGAGGGPGLRPP-IGC-PORRLG-ARERRDVOEILLAVGLPGR-PPRPAPPAAS 67
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CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC TITLE OF INVENTION: OSTEOGENIC DEVICES
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: 53 STATE STREET
CC CITY: BOSTON
CC STATE: MASSACHUSETTS
CC COUNTRY: U.S.A.
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
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CC APPLICATION NUMBER: US 810,560
CC FILING DATE: 20-DEC-1991
CC PRIOR APPLICATION DATA:
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CC FILING DATE: 28-JAN-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 660,162
CC FILING DATE: 22-FEB-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,988
CC FILING DATE: 04-DEC-1990

CC GENERAL INFORMATION:
CC APPLICANT:
CC TITLE OF INVENTION: MORPHOGEN-ENRICHED DIETARY COMPOSITION
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: CREATIVE BIOMOLECULES, INC.
CC STREET: 35 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US93/07190
CC ATTORNEY/AGENT INFORMATION:
CC NAME: KELLEY, ROBIN D.
CC REGISTRATION NUMBER: 34,637
CC REFERENCE/DOCKET NUMBER: CRP-071
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC TELEFAX: 617/248-7100
CC INFORMATION FOR SEQ ID NO: 21:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA: 44698 MW: 800499 CN;
SQ

Query Match 1.88; Score 125; DB 3; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

DB 12 GLALCALGGGPGELRPP-GC--PORRLG-ARERDVQREILAVLGGR-PPRPAPPAAS 67
QY 194 GPPLIYOLGNATQK-RPPPHASGPRRLGCEERAMNHSVREAGVPLGLPAPGARRRGGSSASR 252
DB 68 RLP 70
QY 253 SLP 255

Search completed: Tue Jun 27 14:57:59 2000
Job time : 45 secs.

MIRAGE (TM)

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Mparch_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 18:20:25 2000; MasPar time 296.26 Seconds
1202.319 Million cell updates/sec

Tabular output not generated.

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Description: (1-3798) from US08951733.seq
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N.A. Sequence: 1 CCACGGCGTCCGGGACGCGT.....GGANTAGTCATCCCTGAT 3798
Comp: GGTGCGGACGCCGTGCGCA.....CCTTATCAGTAGGGGACTA

Scoring table: TABLE default
Gap 6

Match STD : Dbase 0; Query 0

Searched: 176463 segs, 46893068 bases x 2

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database: n-issued
1:5A_COMB 2:5B_COMB 3:5C_COMB 4:5D_COMB 5:PCT9_COMB
6:backfiles1

Statistics: Mean 9.566; Variance 5.752; scale 1.663

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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2	52	1.4	965	3	US-08-388-Sequence 22, Applicati	8.73e-16
3	49	1.3	7218	2	US-08-232-Sequence 14, Applicati	5.35e-14
4	42	1.1	215	1	US-08-238-Sequence 5, Applicatio	6.33e-09
5	40	1.1	965	3	US-08-388-Sequence 22, Applicati	8.63e-09
6	37	1.0	215	1	US-08-238-Sequence 5, Applicatio	4.05e-07
7	25	0.7	68	1	US-07-977-Sequence 243, Applicat	6.35e-01
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ALIGNMENTS

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CC Sequence 14, Application US/08232463
CC Patent No. 5670367
CC GENERAL INFORMATION:
CC APPLICANT: DORNER, F.
CC APPLICANT: SCHEIFLINGER, F.
CC APPLICANT: FALKNER, F. G.
CC TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
CC NUMBER OF SEQUENCES: 52
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Foley & Lardner
CC STREET: 1800 Diagonal Road, Suite 500
CC CITY: Alexandria
CC STATE: VA
CC COUNTRY: USA
CC ZIP: 22313-0299
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/232,463
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US/07/935,313
CC FILING DATE:
CC APPLICATION NUMBER: EP 91 114 300.6
CC FILING DATE: 26-AUG-1991
CC ATTORNEY/AGENT INFORMATION:
CC NAME: BENT, Stephen A.
CC REGISTRATION NUMBER: 29,768
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (703)836-9300
CC TELEFAX: (703)683-4109
CC TELEX: 899149
CC INFORMATION FOR SEQ ID NO: 14:

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CC      FILING DATE: 14-FEB-1995
CC      CLASSIFICATION:
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: Hanson, No. 579561man D.
CC      REGISTRATION NUMBER: 30,946
CC      REFERENCE/DOCKET NUMBER: LUD 5409
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: 212-688-9200
CC      TELEFAX: 212-688-3884
CC      INFORMATION FOR SEQ ID NO: 22:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 965 base pairs
CC      TYPE: nucleic acid
CC      STRANDEDNESS: unknown
CC      TOPOLOGY: unknown
CC      MOLECULE TYPE: DNA (genomic)
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AC      xxxxxx

Dt      Sequence 14, Application US/08232463
Cc      Sequence 14, Application US/08232463
Cc      Patent No. 5670367
Cc      GENERAL INFORMATION:
Cc      APPLICANT: DORNER, F.
Cc      APPLICANT: SCHEFLINGER, F.
Cc      APPLICANT: FALKNER, F. G.
Cc      TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
Cc      NUMBER OF SEQUENCES: 52
Cc      CORRESPONDENCE ADDRESS:
Cc      ADDRESSEE: Foley & Lardner
Cc      STREET: 1800 Diagonal Road, Suite 500
Cc      CITY: Alexandria
Cc      STATE: VA
Cc      COUNTRY: USA
Cc      ZIP: 22313-0299
Cc      COMPUTER READABLE FORM:
Cc      MEDIUM TYPE: Floppy disk
Cc      COMPUTER: IBM PC compatible
Cc      OPERATING SYSTEM: PC-DOS/MS-DOS
Cc      SOFTWARE: Patentin Release #1.0, Version #1.25
Cc      CURRENT APPLICATION DATA:
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Cc      PRIOR APPLICATION DATA:
Cc      APPLICATION NUMBER: US/07/935,313
Cc      FILING DATE:
Cc      APPLICATION NUMBER: EP 91 114 300.6
Cc      FILING DATE: 26-AUG-1991
Cc      ATTORNEY/AGENT INFORMATION:
Cc      NAME: BENT, Stephen A.
Cc      REGISTRATION NUMBER: 29,768
Cc      REFERENCE/DOCKET NUMBER: 30472/114 IMMU

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CC TELECOMMUNICATION INFORMATION:  
CC TELEPHONE: (703)836-9300  
CC TELEFAX: (703)683-4109  
CC TELEX: 899149  
CC INFORMATION FOR SEQ ID NO: 14:  
CC SEQUENCE CHARACTERISTICS:  
CC LENGTH: 7218 base pairs  
CC TYPE: nucleic acid  
CC STRANDEDNESS: single  
CC TOPOLOGY: linear  
CC IMMEDIATE SOURCE:  
CC CLONE: PTZgpt-F15  
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Cc Best Local Similarity 2.0%; Pred. No. 5,35e-14;  
Cc Matches 6; Conservative 165; Mismatches 122; Indels 0; Gaps 0;  
  
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Db 1390 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1442  
Cc : : : : : : : : : : : : : : : : : : : : : : : :  
Cc 1840 CTGTCTGATTCCAATGCTTGGCACTGCTCCAGACACTCTCCGCTAGAAAA 1788  
Cc : : : : : : : : : : : : : : : : : : : : : : : :  
  
RESULT 4  
ID US-08-238-163-5 STANDARD; DNA; UNC; 215 BP.  
AC xxxxxx  
DT Sequence 5, Application US//08238163  
DE Sequence 5, Application US//08238163  
CC Patent No. 5569830  
CC GENERAL INFORMATION:  
Cc APPLICANT: BENNETT, Alan  
Cc APPLICANT: LABAVITCH, John M.  
Cc APPLICANT: POMEIL, Ann  
Cc APPLICANT: STOTZ, Henrik  
Cc TITLE OF INVENTION: PLANT INHIBITORS OF FUNGAL  
Cc NUMBER OF SEQUENCES: 24  
Cc CORRESPONDENCE ADDRESSES:  
Cc ADDRESSSEE: Townsend and Townsend Kourlie and Crew  
Cc STREET: Steuart Street Tower, One Market Plaza  
Cc CITY: San Francisco  
Cc STATE: California  
Cc COUNTRY: US  
Cc ZIP: 94105-1493  
Cc COMPUTER READABLE FORM:  
Cc MEDIUM TYPE: floppy disk  
Cc COMPUTER: IBM PC compatible  
Cc OPERATING SYSTEM: PC-DOS/MS-DOS  
Cc SOFTWARE: Patentin Release #1.0, Version #1.25  
Cc CURRENT APPLICATION DATA:  
Cc APPLICATION NUMBER: US/08/238,163  
Cc FILING DATE: 03-MAY-1994  
Cc CLASSIFICATION: B00  
Cc ATTORNEY/AGENT INFORMATION:  
Cc NAME: Bastian, Kevin L.  
Cc REGISTRATION NUMBER: 34,774
```

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CC REFERENCE/DOCKET NUMBER: 2207E-540
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 543-9600
CC TELEFAX: (415) 543-5043
CC INFORMATION FOR SEQ ID NO: 5:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 215 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: misc_feature
CC LOCATION: 1..215
CC OTHER INFORMATION: /standard.name="Deduced amino acid
CC OTHER INFORMATION: sequence of TGP from bean."
CC SEQUENCE 215 BP: 15 A; 8 C; 25 G; 26 T; 141 OTHER.
CC
CC Query Match 1.1%; Score 42; DB 1; Length 215;
CC Best Local Similarity 15.5%; Pred. No. 6.33e-10;
CC Matches 32; Conservative 82; Mismatches 90; Indels 2; Gaps 2;
CC
CC Db 7 SSSVSSTASCNDAKADGNTSSWTTDCCNRWGVCDTITRYVNDSSGHNKYSANY 66
CC Oy 2641 GCGGGACGGCGGTCCCTCCGCTGGTGATGATTTCTTGTGTGACACCTCACCTAC 2700
CC
CC Db 67 NYGNGNVAAKTHYTHYTHNVSGADSKYTDYSNAGTSSNGDTGDN-SGADSYGSSKT 125
CC Oy 2701 CCAGCCGAAACCTTCCTCCAGACCCCTGTCGAGGTCTCCCTGAGTATGCTGCTGTGT 2760
CC
CC Db 126 AMTSHNRITGKTANNAVDSRNMGDASVGS-D-KNTKKHAKNSADGKYSKNNGDRNNRYGTG 184
CC Oy 2761 GAACCTGGGGAAGACAGTGGTGAAGTCTCCGTGTAGAAACAGAGGCGCCGTGGGACAGCC 2820
CC
CC Db 185 TKSNVSNNGGGNKRDSVSTANNNKC 210
CC Oy 2821 TTTTGTTCAGATGCGCGCCACAGGCC 2846
CC
CC RESULT 5
CC ID US-08-388-672A-22 STANDARD; DNA; UNC; 965 BP.
CC AC xxxxxx
CC
CC DE Sequence 22, Application US/08388672A
CC CC Sequence 22, Application US/08388672A
CC CC Patent No. 5795961
CC
CC GENERAL INFORMATION:
CC APPLICANT: Wallace, T. Paul
CC APPLICANT: Harris, William J.
CC APPLICANT: Carr, Frank J.
CC APPLICANT: Old, Lloyd J.
CC APPLICANT: Well, Sydney
CC APPLICANT: Kitamura, Kunito
CC TITLE OF INVENTION: Recombinant Human Anti-Lewis B
CC TITLE OF INVENTION: Antibodies
CC NUMBER OF SEQUENCES: 25
CC
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Felte and Lynch
CC STREET: 805 Third Avenue
CC CITY: New York
CC STATE: New York
CC COUNTRY: U.S.A.
CC
CC ZIP: 10022
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/388,672A
CC FILING DATE: 14-FEB-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:

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CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 68
CC	TYPE: NUCLEIC ACID
CC	STRANDEDNESS: SINGLE
CC	TOPOLOGY: LINEAR
CC	ANTI-SENSE: NO
SQ	SEQUENCE 68 BP; 7 A; 38 C; 17 G; 6 T; 0 OTHER.
Dd	Query Match 0.7%; Score 25; DB 1; Length 68;
Qy	Best Local Similarity 75.5%; Pred. No. 6,35e-01;
	Matches 37; Conservative 0; Mismatches 12; Indels 0; Gaps 0;
Dd	11 CGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAGACCTTCCTTGAAG 59
Qy	234 CGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAGGTGCTGCTGAAG 302
RESULT	8
ID	US-08-471-052A-142 STANDARD; DNA; UNC; 69 BP.
AC	xxxxxx
Dt	Sequence 142, Application US/08471052A
CC	Sequence 142, Application US/08471052A
CC	Patent No. 5625033
CC	GENERAL INFORMATION:
CC	APPLICANT: Kay, B. K.
CC	APPLICANT: Fowkes, D. M.
CC	TITLE OF INVENTION: Totally Synthetic Affinity Reagents
CC	NUMBER OF SEQUENCES: 166
CC	CORRESPONDENCE ADDRESS:
CC	ADDRESSEE: Pennie & Edmonds
CC	STREET: 1155 Avenue of the Americas
CC	CITY: New York
CC	STATE: New York
CC	COUNTRY: U.S.A.
CC	ZIP: 10036-2711
CC	COMPUTER READABLE FORM:
CC	MEDIUM TYPE: Floppy disk
CC	COMPUTER: IBM PC compatible
CC	OPERATING SYSTEM: PC-DOS/MS-DOS
CC	SOFTWARE: PatentIn Release #1.0, Version #1.25
CC	CURRENT APPLICATION DATA:
CC	APPLICATION NUMBER: US/08/471,052A
CC	FILING DATE: 06-JUNE-1995
CC	CLASSIFICATION: 530
CC	ATTORNEY/AGENT INFORMATION:
CC	NAME: Mistock, S. Leslie
CC	REGISTRATION NUMBER: 18,872
CC	REFERENCE/DOCKET NUMBER: 1101-179
CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: 212 790-9090
CC	TELEFAX: 212 869-8864/9741
CC	TELEX: 66141 PENNIE
CC	INFORMATION FOR SEQ ID NO: 142:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 69 bases
CC	TYPE: nucleic acid
CC	STRANDEDNESS: single
CC	TOPOLOGY: unknown
CC	MOLECULE TYPE: DNA
SQ	SEQUENCE 69 BP; 2 A; 4 C; 6 G; 2 T; 55 OTHER.
Qy	Query Match 0.7%; Score 25; DB 1; Length 69;
	Best Local Similarity 11.3%; Pred. No. 6,35e-01;
Matches	7; Conservative 18; Mismatches 37; Indels 0; Gaps 0;
Dd	7 AGNNBNNBNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBCCA 66
Qy	1433 AGCACCCCCGGCAGGTACGGCTTGCGGGGCGCTGCCTGCGCGCTGTCGCCCA 1492
Dd	67 GG 68
Qy	1493 GG 1494

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RESULT      9
DT ID       US-08-488-161-94 STANDARD: DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 94, Application US/08488161
CC Sequence 94, Application US/08488161
CC Patent No. 5885577
CC GENERAL INFORMATION:
CC APPLICANT: Alvarez, Vernon L.
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/488,161
CC FILING DATE: 07-JUN-1995
CC CLASSIFICATION: 436
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistrock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-176
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TEXT: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 94:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA
CC SEQUENCE 74 BP; 3 A; 4 C; 3 G; 1 T; 63 OTHER.
SQ

Query Match      0.7%; Score 26; DB 4; Length 74;
Best Local Similarity 11.4%; Pred. NO. 2.12e-01;
Matches      8; Conservative 19; Mismatches 43; Indels 0; Gaps 0.

Db      3 GAGNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNN 62
      111 : : : : : : : : : : : : : : : : : : : : : : : :
OY      2449 GAGCTCTTCCTTGATGAGCCAGCAGAGCGCCTTTCGACGCTCTCTACGCTTCAGTGTG 2508
      : : : : : : : : : : : : : : : : : : : : : : : :

Db      63 BNNBNACGCC 72
      : : : : : : : : : : : : : : : : : : : : : : : :
OY      2509 CCACCACGCC 2518

RESULT      10
DT ID       PCT-US95-11934-94 STANDARD: DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 94, Application PC/TUS9511934
CC Sequence 94, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: Cytogen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds

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DE Sequence 94, Application PC/TUS9511934
CC Sequence 94, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: Cytogen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentln Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistrock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 94:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP; 3 A; 4 C; 3 G; 1 T; 63 OTHER.
SQ
Query Match 0.7%; Score 26; DB 5; Length 74;
Best Local Similarity 11.4%; Pred.No. 2,12e-01;
Matches 8; Conservative 19; Mismatches 43; Indels 0; Gaps 0;
Db 3 GAGNNBNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNN 62
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Cc 541 GAGCGGCGAGGTCCACGACGTAACACGACTCTCTGCCCCACGGCGCACGACAG 482
Db 63 BNNBNACGCC 72
: : |||||
Cp 481 CCCCCACGCC 472

RESULT 15
ID US-08-488-161-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx
DE Sequence 100, Application US/08488161
CC Sequence 100, Application US/08488161
CC Patent No. 5885577
CC GENERAL INFORMATION:
CC APPLICANT: Alvarez, Vernon L.
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036
CC COMPUTER READABLE FORM:

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CC      MEDIUM TYPE: Floppy disk
CC      COMPUTER: IBM PC compatible
CC      OPERATING SYSTEM: PC-DOS/MS-DOS
CC      SOFTWARE: PatentIn Release #1.0, Version #1.30
CC      CURRENT APPLICATION DATA:
CC      APPLICATION NUMBER: US/08/488,161
CC      FILING DATE: 07-JUN-1995
CC      CLASSIFICATION: 436
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: Mistock, S. Leslie
CC      REGISTRATION NUMBER: 18,872
CC      REFERENCE/DOCKET NUMBER: 1101-176
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (212) 790-9090
CC      TELEFAX: (212) 869-9741/8864
CC      TELEX: 66141 PENNIE
CC      INFORMATION FOR SEQ ID NO: 100:
CC          SEQUENCE CHARACTERISTICS:
CC              LENGTH: 74 base pairs
CC              TYPE: nucleic acid
CC              STRANDEDNESS: single
CC              TOPOLOGY: linear
CC      MOLECULE TYPE: DNA
CC      SEQUENCE 74 BP; 6 A; 6 C; 1 G; 1 T; 60 OTHER.
Cc      Query Match           0.7%; Score 26; DB 4; Length 74;
Cc      Best Local Similarity 10.3%; Pred. No. 2,12e-01;
Cc      Matches       7; Conservative    20; Mismatches   41; Indels     0; Gaps     0.
Dd      3 AGAANNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
Dd      ||| : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
Cp      542 AGAGGCGCCACGTCGCAGCAGTGAAACACGACGTCGTGCCACCAGCGGGCGAGCAGCA 483
Cp      63 VNNACCAc 70
Cp      : ||||
Cp      482 GCCCCAC 475
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Search completed: Tue Jun 27 18:32:24 2000
Job time : 719 secs.

(1) (2) (3) (4) (5)

CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: (617) 248-7560
CC	TELEFAX: (617) 248-7100
CC	INFORMATION FOR SEQ ID NO: 23:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 399 amino acids
CC	TYPE: amino acid
CC	TOPOLOGY: linear
CC	MOLECULE TYPE: protein
CC	SEQUENCE 399 AA; 44764 MW; 790568 CN;
SO	
Db	Query Match 1.4%; Score 118; DB 1; Length 399;
	Best Local Similarity 38.7%; Pred.No.3.48e+00;
Oy	Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;
Db	12 GLALCAAGGSGPRP-HTC-PQRRLG-ARRKRMQRELLAVGLPGR-FRPAQPPAAR 67
Oy	194 GPPLYQLGAATAQARPPIHPSGRRRLRCERAMNHSVREAGVPLGLPAPGARRGGSASRS 253
Db	68 QP 69
Oy	254 LP 255
DT	
XX	Sequence 13, Application US/07901703
DE	
CC	Sequence 13, Application US/07901703
CC	Patent No. 5344654
CC	GENERAL INFORMATION:
CC	APPLICANT: RUEGER, DAVID C
CC	APPLICANT: KUBERASAMPATH, THANGAVEL
CC	APPLICANT: OPPERMANN, HERMANN
CC	APPLICANT: OZAKAVNAK, ENGIN
CC	TITLE OF INVENTION: PROSTHETIC DEVICES HAVING ENHANCED
CC	TITLE OF INVENTION: OSTROGENIC PROPERTIES
CC	NUMBER OF SEQUENCES: 22
CC	CORRESPONDENCE ADDRESSES:
CC	ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC	STREET: EXCHANGE PLACE, 53 STATE STREET
CC	CITY: BOSTON
CC	STATE: MA
CC	COUNTRY: USA
CC	ZIP: 02109
CC	COMPUTER READABLE FORM:
CC	MEDIUM TYPE: Floppy disk
CC	COMPUTER: IBM PC compatible
CC	OPERATING SYSTEM: PC-DOS/MS-DOS
CC	SOFTWARE: PatentIn Release #1.0, Version #1.25
CC	CURRENT APPLICATION DATA:
CC	APPLICATION NUMBER: US/07/901,703
CC	FILING DATE: 19920616
CC	CLASSIFICATION: 435
CC	ATTORNEY/AGENT INFORMATION:
CC	NAME: PITCHER ESQ, EDMUND R
CC	REGISTRATION NUMBER: 27,829
CC	REFERENCE/DOCKET NUMBER: STK-057
CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: 617/248-7000
CC	INFORMATION FOR SEQ ID NO: 13:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 399 amino acids
CC	TYPE: AMINO ACID
CC	TOPOLOGY: linear
CC	MOLECULE TYPE: protein
CC	SEQUENCE 399 AA; 44764 MW; 790568 CN;
SO	

Query Match	1.4%	Score 118	DB 1	Length 399
Best Local Similarity	38.7%	Pred. No. 3,49e+00		
Matches	24	Conservative 12	Mismatches 22	Indels 4
			Gaps 4	
Db	12	GLALCALGGGHGPRP-HTC-PQRRLG-AREERDMOREILLAVGLPGR-PRPRAQPAAR	67	
Qy	194	GPPLYLGCAATQANPPPHASGPRRLCCERAMNHSVREAGVPLGLPAPGARRRRGSSASRS	253	
Db	68	Qp 69		
Qy	254	LP 255		
RESULT	3	STANDARD	PRT	399 AA.
ID	US-08-278-729A-23			
XX	xxxxxx			
XX	Sequence 23, Application US/08278729A			
XX	Sequence 23, Application US/08278729A			
CC	Patent No. 5650276			
CC	GENERAL INFORMATION:			
CC	APPLICANT: SMART, JOHN			
CC	APPLICANT: OPERMANN, HERMAN			
CC	APPLICANT: OZKAYNAK, ENGIN			
CC	APPLICANT: KUBERASAMPATH, THANGAVEL			
CC	APPLICANT: RUDGER, DAVID C.			
CC	APPLICANT: PANG, ROY H. L.			
CC	APPLICANT: COHEN, CHARLES M.			
CC	TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD			
CC	NUMBER OF SEQUENCES: 33			
CC	CORRESPONDENCE ADDRESS:			
CC	ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES			
CC	STREET: 45 SOUTH STREET			
CC	CITY: HOPKINTON			
CC	STATE: MA			
CC	COUNTRY: USA			
CC	ZIP: 01748			
CC	COMPUTER READABLE FORM:			
CC	MEDIUM TYPE: Floppy disk			
CC	COMPUTER: IBM PC compatible			
CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
CC	SOFTWARE: Patentin Release #1.0, Version #1.30			
CC	CURRENT APPLICATION DATA:			
CC	APPLICATION NUMBER: US/08/278,729A			
CC	FILING DATE: 20-JUL-1994			
CC	CLASSIFICATION: 435			
CC	ATTORNEY/AGENT INFORMATION:			
CC	NAME: PITCHER ESQ., EDMUND R.			
CC	REGISTRATION NUMBER: 27,829			
CC	REFERENCE/DOCKET NUMBER: CRP-058CPFW			
CC	TELECOMMUNICATION INFORMATION:			
CC	TELEPHONE: (508) 435-9001			
CC	TELEFAX: (508) 435-6951			
CC	INFORMATION FOR SEQ. ID NO.: 23:			
CC	SEQUENCE CHARACTERISTICS:			
CC	LENGTH: 399 amino acids			
CC	TYPE: amino acid			
CC	TOPOLOGY: linear			
CC	MOLECULE TYPE: protein			
CC	SEQUENCE 399 AA; 44764 MW; 790568 CN;			
Db	12	GLALCALGGGHGPRP-HTC-PQRRLG-AREERDMOREILLAVGLPGR-PRPRAQPAAR	67	
Qy	194	GPPLYLGCAATQANPPPHASGPRRLCCERAMNHSVREAGVPLGLPAPGARRRRGSSASRS	253	
Query Match	1.4%	Score 118	DB 1	Length 399
Best Local Similarity	38.7%	Pred. No. 3,49e+00		
Matches	24	Conservative 12	Mismatches 22	Indels 4
			Gaps 4	

Db 68 QP 69
QY 254 LP 255

RESULT 4
ID US-08-480-528A-10 STANDARD; PRT; 399 AA.
XX
AC xxxxxx
DT
DE Sequence 10, Application US/08480528A
XX
CC Sequence 10, Application US/08480528A
CC Patent No. 5652118
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGİN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS
CC NUMBER OF SEQUENCES: 13
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/480,528A
CC FILING DATE: 07-JUN-1995
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: FENTON ESQ., GILLIAN M.
CC REGISTRATION NUMBER: 36,508
CC REFERENCE/DOCKET NUMBER: CRP-076FW
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (617) 248-7560
CC TELEFAX: (617) 248-7100
CC INFORMATION FOR SEQ ID NO: 10:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;

Query Match 1.4%; Score 118; DB 1; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGHGRRP-RTC-FQRUG-ARERDMOREILAVLGFGR-PRPPAGPAAAR 67
QY 194 GPPLYQLGAATQARPPHSGPRRLGRCERANNHVSREAGVPLGLPAGARRRGSGSASRS 253
DB 68 QP 69
QY 254 LP 255

RESULT 5
ID US-08-459-346-8 STANDARD; PRT; 399 AA.
XX
AC xxxxxx

XX
DT
DE Sequence 8, Application US/08459346
XX
CC Sequence 8, Application US/08459346
CC Patent No. 5834179
CC GENERAL INFORMATION:
CC APPLICANT: JONES, WILLIAM K
CC APPLICANT: TUCKER, RONALD F
CC APPLICANT: RUEGER, DAVID C
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGİN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC TITLE OF INVENTION: NOVEL MORPHOGENIC PROTEIN COMPOSITIONS
CC NUMBER OF SEQUENCES: 23
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR/CREATIVE BIOMOLECULES,
CC INC.
CC STREET: 35 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/459,346
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/029,335
CC FILING DATE: 04-MAR-1993
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/971,091
CC FILING DATE: 03-NOV-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/946,235
CC FILING DATE: 16-SEP-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/938,336
CC FILING DATE: 08-AUG-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/923,780
CC FILING DATE: 31-JUL-1992
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-081CP
CC INFORMATION FOR SEQ ID NO: 8:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;

Query Match 1.4%; Score 118; DB 2; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

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DB 68 QP 69
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CC	Sequence 6, Application PC/TUS9107635			
CC	GENERAL INFORMATION:			
CC	APPLICANT: OPPERMANN, HERMANN			
CC	APPLICANT: OZKAYNAK, ENGIN			
CC	APPLICANT: RUEGER, DAVID C			
CC	APPLICANT: KUBERASAMPATH, THANAVEL			
CC	TITLE OF INVENTION: OSTROGENIC DEVICES			
CC	NUMBER OF SEQUENCES: 9			
CC	CORRESPONDENCE ADDRESS:			
CC	ADDRESSEE: TESTA, HURWITZ & THIBEAULT			
CC	STREET: 53 STATE STREET			
CC	CITY: BOSTON			
CC	STATE: MA			
CC	COUNTRY: USA			
CC	ZIP: 02109			
CC	COMPUTER READABLE FORM:			
CC	MEDIUM TYPE: Floppy disk			
CC	COMPUTER: IBM PC compatible			
CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
CC	SOFTWARE: PatentIn Release #1.0, Version #1.25			
CC	CURRENT APPLICATION DATA:			
CC	APPLICATION NUMBER: PCT/US91/07635			
CC	FILING DATE: 19911018			
CC	CLASSIFICATION:			
CC	ATTORNEY/AGENT INFORMATION:			
CC	NAME: PITCHER ESQ, EDWARD R			
CC	REGISTRATION NUMBER: 27,829			
CC	REFERENCE/DOCKET NUMBER: CRP-056PC			
CC	TELECOMMUNICATION INFORMATION:			
CC	TELEPHONE: 617/248-7000			
CC	TELEFAX: 617/248-7100			
CC	INFORMATION FOR SEQ ID NO: 6:			
CC	SEQUENCE CHARACTERISTICS:			
CC	LENGTH: 399 amino acids			
CC	TYPE: AMINO ACID			
CC	TOPOLOGY: linear			
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	Best Local Similarity 39.7%;	Pred. No. 3.49e+00;		
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XX	xxxxxx			
AC				
DT				
XX				
XX	Sequence 23, Application PC/TUS9308808			
DE				
CC	Sequence 23, Application PC/TUS9308808			
CC	GENERAL INFORMATION:			

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CC APPLICANT:  
CC TITLE OF INVENTION: MORPHOGEN-INDUCED LAYER REGENERATION  
CC NUMBER OF SEQUENCES: 33  
CC CORRESPONDENCE ADDRESS:  
CC ADDRESSEE: CREATIVE BIOMOLECULES, INC.  
CC STREET: 45 SOUTH STREET  
CC CITY: HOPKINTON  
CC STATE: MA  
CC COUNTRY: USA  
CC ZIP: 01748  
CC COMPUTER READABLE FORM:  
CC MEDIUM TYPE: Floppy disk  
CC CC  
CC OPERATING SYSTEM: PC-DOS/MS-DOS  
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CC CURRENT APPLICATION DATA:  
CC APPLICATION NUMBER: PCT/US93/08808  
CC FILING DATE:  
CC CLASSIFICATION:  
CC PRIOR APPLICATION DATA:  
CC APPLICATION NUMBER:  
CC FILING DATE:  
CC ATTORNEY/AGENT INFORMATION:  
CC NAME: KELLEY ESQ, ROBIN D.  
CC REGISTRATION NUMBER: 34,637  
CC REFERENCE/DOCKET NUMBER: CRP -072  
CC TELECOMMUNICATION INFORMATION:  
CC TELEPHONE: 617/248-7477  
CC TELEFAX: 617/248-7100  
CC INFORMATION FOR SEQ ID NO: 23:  
CC SEQUENCE CHARACTERISTICS:  
CC LENGTH: 399 amino acids  
CC TYPE: amino acid  
CC TOPOLOGY: linear  
CC MOLECULE TYPE: Protein  
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;  
  
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CC GENERAL INFORMATION:  
CC APPLICANT:  
CC TITLE OF INVENTION: MORPHOGEN-INDUCED PERIODONTAL TISSUE REGENERATION  
CC NUMBER OF SEQUENCES: 33  
CC CORRESPONDENCE ADDRESS:  
CC ADDRESSEE: CREATIVE BIOMOLECULES, INC.  
CC STREET: 45 SOUTH STREET  
CC CITY: HOPKINTON  
CC STATE: MA  
CC COUNTRY: USA  
CC ZIP: 01748  
CC COMPUTER READABLE FORM:  
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CC Patent No. 5714589
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H. L.
CC TITLE OF INVENTION: OSTEOGENIC DEVICES
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: 53 STATE STREET
CC CITY: BOSTON
CC STATE: MASSACHUSETTS
CC COUNTRY: U.S.A.
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/447,570
CC FILING DATE: 21-FEB-1992
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 810,560
CC FILING DATE: 20-DEC-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 827,052
CC FILING DATE: 28-JAN-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 660,162
CC FILING DATE: 22-FEB-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,849
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 616,374
CC FILING DATE: 21-NOV-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 600,024
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 599,543
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 579,865
CC FILING DATE: 07-SEP-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 569,920
CC FILING DATE: 20-AUG-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 483,913
CC FILING DATE: 22-FEB-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 422,613
CC FILING DATE: 17-OCT-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 315,342

CC FILING DATE: 23-FEB-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 232,630
CC FILING DATE: 15-AUG-1988
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 179,460
CC FILING DATE: 08-APR-1988
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-001CP6
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC TELEFAX: 617/248-7100
CC INFORMATION FOR SEQ ID NO: 27:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA: 44764 MW; 790568 CN;
SQ
Query Match 1.4%; Score 118; DB 1; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGHGPRP-HTC-PORRLG-ARERRDMOREILLAVLGLPGR-PPRAQPAAR 67
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DE Sequence 23, Application US/08451953A
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CC Sequence 23, Application US/08451953A
CC Patent No. 5741641
CC GENERAL INFORMATION:
CC APPLICANT: SMART, JOHN
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H. L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/451,953A
CC FILING DATE: 26-MAY-1995
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:

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CC      TOPOLOGY: linear
CC      MOLECULE TYPE: protein
CC      SEQUENCE   399 AA; 44764 MW; 790568 CN;
Query Match          1.4%; Score 118; DB 1; Length 399;
Best Local Similarity 38.7%; Pred. No. 3,49e+00;
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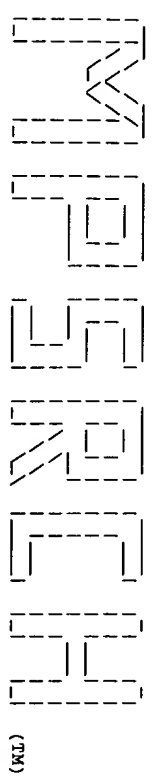
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Job time : 38 secs.

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CC	Patent No. 5733878			
CC	GENERAL INFORMATION:			
CC	APPLICANT: KUBERASAMPATH, THANGAVEL			
CC	APPLICANT: RUBGER, DAVID C.			
CC	APPLICANT: OPPERMANN, HERMAN			
CC	APPLICANT: COHEN, CHARLES M.			
CC	APPLICANT: PANG, ROY H. L.			
CC	TITLE OF INVENTION: MORPHOGENIC-INDUCED PERIODONTAL TISSUE			
CC	TITLE OF INVENTION: REGENERATION.			
CC	NUMBER OF SEQUENCES: 33			
CC	CORRESPONDENCE ADDRESS:			
CC	ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES			
CC	STREET: 45 SOUTH STREET			
CC	CITY: HOPKINTON			
CC	STATE: MA			
CC	COUNTRY: USA			
CC	ZIP: 01748			
CC	COMPUTER READABLE FORM:			
CC	MEDIUM TYPE: Floppy disk			
CC	COMPUTER: IBM PC compatible			
CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
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CC	CURRENT APPLICATION DATA:			
CC	APPLICATION NUMBER: US/08/643,763A			
CC	CLASSIFICATION: 514			
CC	FILING DATE: 06-MAY-1996			
CC	AUTHOR/AGENT INFORMATION:			
CC	NAME: FENTON ESQ., GILLIN M.			
CC	REGISTRATION NUMBER: 36,508			
CC	REFERENCE/DOCKET NUMBER: CRP-067CN			
CC	TELECOMMUNICATION INFORMATION:			
CC	TELEPHONE: (617) 248-7560			
CC	TELEFAX: (617) 248-7100			
CC	INFORMATION FOR SEQ. ID NO: 23:			
CC	SEQUENCE CHARACTERISTICS:			
CC	LENGTH: 399 amino acids			

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Search completed: Tue Jun 27 15:08:15 2000
Job time : 38 secs.
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Release 3.1A John F. Collins, Biocomputing Research Unit.
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Distribution rights by Oxford Molecular Ltd

Mpsrch_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 15:57:26 2000; Maspar time 3980.31 Seconds

Tabular output not generated. 1355.693 Million cell updates/sec

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Perfect Score: 2848
N.A. Sequence: 1 CACCGCGTCCGCGACCGCTG.....CATCGCGCCGCGGCGGATA
Comp: GTGCGCGACGCGCGTGCAC.....CTACGCGCGGCGGCGGATA

Scoring table: TABLE default
Gap 6

Nmatch STD : Dbase 0; Query 0

Searched: 2868244 segs, 947344977 bases x 2

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: n-pending
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25:06016 26:06017 27:06018 28:06019 29:06020 30:06021 31:06022 32:06023 33:06024 34:06025 35:06026 36:06027 37:06028 38:06029 39:06030
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Statistics: Mean 11.205; Variance 4.078; scale 2.748

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	2848	100.0	3798 46	US-08-951-	Sequence 19, Applicat	0.00e+00
3	2840	99.7	7029 44	US-08-911-	Sequence 1, Applicat	0.00e+00
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7	2837	99.6	4015 47	US-08-974-	Sequence 1, Applicat	0.00e+00
8	2837	99.6	4015 42	US-08-854-	Sequence 224, Applicat	0.00e+00
9	2837	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
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24	2562	90.1	3466 60	US-09-108-	Sequence 63, Applicat	0.00e+00
25	2562	90.1	3500 60	US-09-108-	Sequence 47, Applicat	0.00e+00
26	2530	88.8	3033 60	US-09-108-	Sequence 49, Applicat	0.00e+00
27	2530	88.8	3326 60	US-09-108-	Sequence 45, Applicat	0.00e+00
28	2528	88.8	3918 60	US-09-108-	Sequence 88, Applicat	0.00e+00
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34	2314	81.3	3137 60	US-09-108-	Sequence 79, Applicat	0.00e+00
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ALIGNMENTS

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AC xxxxxx
DE Sequence 13, Application US/08951733
Sequence 13, Application US/08951733
GENERAL INFORMATION:
APPLICANT: Harrington, Lea A.
APPLICANT: Robinson, Murray O.
TITLE OF INVENTION: NOVEL GENES ENCODING TELOWERASE PROTEINS
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
ADDRESSEE: Amgen Inc.
STREET: One Amgen Center Drive
CITY: Thousand Oaks
STATE: CA
COUNTRY: USA
ZIP: 91320-1789
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/951,733
FILING DATE: 16-OCT-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/873,039
FILING DATE: 11-JUN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/751,189
FILING DATE: 15-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Oleski, Nancy A.

REGISTRATION NUMBER: 34,688
REFERENCE/DOCKET NUMBER: A-433B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (805) 447-6504
TELEFAX: (805) 499-8011
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 2848 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
SEQUENCE 2848 BP: 437 A; 978 C; 945 G; 488 T; 0 OTHER.

Query Match 100.0%; Score 2848; DB 46; Length 2848;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 2848; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 781 AGCGGTGGCGCTCCCTGAGCGGAGCGGACGCGCCCTTGGGCAAGGGGTCTTGGGCCAC 840
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Qy 1021 AGCGCTTGTCCCGCGGTGTAGCGCGGAGACCAAGCACTTCTTACTCTCTAGCGGCAAG 1080

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Qy 1141 AGCGTGTGAGAGCACTTCTTGTGGTTCAGAGCGCGCGCGCGCGCGCGCGCGCGCG 1200

Db 1201 TTGCGCGCGCTGCG 1260
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Qy 1201 TTGCGCGCGCTGCG 1260

Db 1261 AACCAAGCGCAGTGGCGCTTACGAGGAGTGTCTCAAGAGCAGTGGCGCGGTGGAGCTGG 1320
|||
Qy 1261 AACCAAGCGCAGTGGCGCTTACGAGGAGTGTCTCTCAAGAGCAGTGGCGCGGTGGAG 1320

Db 1321 GTACCCCGACAGCGCGGTGTGTGTGCGCGGAGAAAGCCCGAGGCTGTGTGCGGCGCC 1380
|||
Qy 1321 GTACCCCGACAGCGCGGTGTGTGTGCGCGGAGAAAGCCCGAGGCTGTGTGCGGCGCC 1380

Db 1381 GAGGAGGAGGACACAGACCCCGCGCGCTGTGTGACGCTCTCCGCGACACAGACCC 1440
|||
Qy 1381 GAGGAGGAGGACACAGACCCCGCGCGCTGTGTGACGCTCTCCGCGACACAGACCC 1440

Db 1441 TGGCAGGTGTAGGCTTCTGTGCGGCGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 1500
|||
Qy 1441 TGGCAGGTGTAGGCTTCTGTGCGGCGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 1500

Db 1501 GCGTCCAGGACAAAGCGCGCGCTTCTCAAGAAACCAAGATTCATCTCCGTGGGG 1560
|||
Qy 1501 GCGTCCAGGACAAAGCGCGCGCTTCTCAAGAAACCAAGATTCATCTCCGTGGGG 1560

Db 1561 AAGCATGCCAAGCTCTGCTGCGAGAGCTGAGAGTGAATAGAGGTGGGAGTGCCT 1620
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Db 1621 TGGCTGCGAGAGCGCGAGGCGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1680
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Db 1741 TCTTTCTTTTATGTCAAGAGACACGTTTCAAAAGACAGGCTCTTTTCTTACCGGAAG 1800
|||
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Db 1801 AGTGTGTGAGCAAGTTTGAAGAGCATTGAATCAGACACACTTGAAGAGGGTGGACGCTG 1860
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Qy 1801 AGTGTGTGAGCAAGTTTGAAGAGCATTGAATCAGACACACTTGAAGAGGGTGGACGCTG 1860

Db 1861 AGTGTGTGAGCAAGTTTGAAGAGCATTGAATCAGACACACTTGAAGAGGGTGGACGCTG 1920
|||
Qy 1861 AGTGTGTGAGCAAGTTTGAAGAGCATTGAATCAGACACACTTGAAGAGGGTGGACGCTG 1920

CC	APPLICANT:	Robinson, Murray O.
CC	TITLE OF INVENTION:	NOVEL GENES ENCODING TELOMERASE PROTEINS
CC	NUMBER OF SEQUENCES:	44
CC	CORRESPONDENCE ADDRESS:	
CC	ADDRESSEE:	Amgen Inc.
CC	STREET:	One Amgen Center Drive
CC	CITY:	Thousand Oaks
CC	STATE:	CA
CC	COUNTRY:	USA
CC	ZIP:	91320-1789
CC	COMPUTER READABLE FORM:	
CC	MEDIUM TYPE:	Floppy disk
CC	COMPUTER:	IBM PC compatible
CC	OPERATING SYSTEM:	PC-DOS/MS-DOS
CC	SOFTWARE:	PatentIn Release #1.0, Version #1.30
CC	CURRENT APPLICATION DATA:	
CC	APPLICATION NUMBER:	US/08/951,733
CC	FILING DATE:	16-OCT-1997
CC	CLASSIFICATION:	435
CC	PRIOR APPLICATION DATA:	
CC	APPLICATION NUMBER:	US 08/873,039
CC	FILING DATE:	11-JUN-1997
CC	PRIOR APPLICATION DATA:	
CC	APPLICATION NUMBER:	US 08/751,189
CC	FILING DATE:	15-NOV-1996
CC	ATTORNEY/AGENT INFORMATION:	
CC	NAME:	Oleski, Nancy A.
CC	REGISTRATION NUMBER:	34,688
CC	REFERENCE/DOCKET NUMBER:	A-433B
CC	TELECOMMUNICATION INFORMATION:	
CC	TELEPHONE:	(805) 447-6504
CC	TELEFAX:	(805) 499-8011
CC	INFORMATION FOR SEQ ID NO:	19:
CC	SEQUENCE CHARACTERISTICS:	
CC	LENGTH:	3798 base pairs
CC	TYPE:	nucleic acid
CC	STRANDEDNESS:	single
CC	TOPOLOGY:	linear
CC	MOLECULE TYPE:	cdna
SQ	SEQUENCE	3798 BP; 613 A; 1310 C; 1213 G; 662 T; 0 OTHER.

Query Match	100.0%;	Score 2848;	DB 46;	Length 3798;
Best Local Similarity	100.0%;	Pred. No. 0.00e+00;		
Matches 2848;	Conservative	0;	Mismatches 0;	Indels 0;
Gaps				0.

Db	2	CACGGTCGCGGGAGCGGTGCCTGCTGGCAGCTGGGAAGCCCTGCCCCGCCACC	61
QY	1	CACGGTCCGGGAGCACGGTGCTCCTGTGGCAGTGGGAAGCCCTGCCCCGCCACC	60
Db	62	CCCGCATGCCGCGGCTCCCGCTGCGAGACCGTGGGCTCCTGTGGCAGCACTAC	121
QY	61	CCCGGATGCGCGCGGCTCCCGCTGCGAGACCGTGGGCTCCTGTGGCAGCACTAC	120
Db	122	GCGAGGTGTCGCGGTGGCACGTTGTGTGGGCGCTTG66GCCCAAGGCTGGCGGTG	181
QY	121	GCGAGGTGTCGCGGTGGCACGTTGTGTGGGCGCTTG66GCCCAAGGCTGGCGGTG	180
Db	132	GTGACGCGCGGGGAGCCGGGCGGCTTTCGCGCGCTGTGTGGCCAGTGCCTGTGGGTG	241
QY	181	GTGACGCGCGGGGAGCCGGGCGGCTTTCGCGCGCTGTGTGGCCAGTGCCTGTGGGTG	240
Db	242	CCCTGAGACGAGCGGCGCCCGCCGCGCGCCCTTCCTTCCGCGCAGGTGTCTTGCTGAAG	301
QY	241	CCCTGAGACGAGCGGCGCCCGCCGCGCGCCCTTCCTTCCGCGCAGGTGTCTTGCTGAAG	300
Db	302	GAGCTGTGGCCCGAGTGTCTCAGAGGCTGTGCGAGCGCGGCGCGAAGAAGTGTGGCC	361
QY	301	GAGCTGTGGCCCGAGTGTCTCAGAGGCTGTGCGAGCGCGGCGCGAAGAAGTGTGGCC	360
Db	362	TTTGGCTTTCGGCTGTGTGATGGGGCCCGGGGGGCCCCC CGAGGCTTACCAACAGC	421
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Db 422 GTGCGAGCTACTGCCCCAACAGCGGTAGACGCCACTGCGGGGGAGCGGGGCTGGGG 481
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QY 421 GTGCGAGCTACTGCCCCAACAGCGGTAGACGCCACTGCGGGGGAGCGGGGCTGGGG 480
Db 482 CTGCTGTGCGCCGCTGGGCGAGCAGCTGTGTTCACTGACCTGAGGACGCTGGGCTC 541
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QY 481 CTGCTGTGCGCCGCTGGGCGAGCAGCTGTGTTCACTGACCTGAGGACGCTGGGCTC 540
Db 542 TTTGTGCTGTGCTGCTCCAGCTGCGCTACCAAGTGTGCGGGCGCGCTGTACAGCTC 601
QY |||||
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QY 661 TGCAGAGGCGGCTGGAACATAGAGCTGAGGAGGCGGGGTCCTGCGGCTGCGAGCC 720
Db 722 CCGGCTGCGAGAGAGCGCGCGGGGCGAGTGCAGCGGAAGTCTGCCGTTGCCAGAGGCC 781
QY |||||
QY 721 CCGGCTGCGAGAGAGCGCGGGGCGAGTGCAGCGGAAGTCTGCCGTTGCCAGAGGCC 780
Db 782 AGGCGTGGCGCTGCGCGTGAAGCGGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCG 841
QY |||||
QY 781 AGGCGTGGCGCTGCGCGTGAAGCGGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCG 840
Db 842 CCGGCGAGGAGCGCTGAGACCGAGTGAACGTTCTGTGTGTGTGTGTGTGTGTGTGTGT 901
QY |||||
QY 841 CCGGCGAGGAGCGCTGAGACCGAGTGAACGTTCTGTGTGTGTGTGTGTGTGTGTGTGT 900
Db 902 GCCGAAGAAGCCACTCTTTTGAAGGTCGCTCTGTGACGCGCCACTCCACCCATCC 961
QY |||||
QY 901 GCCGAAGAAGCCACTCTTTTGAAGGTCGCTCTGTGACGCGCCACTCCACCCATCC 960
Db 962 GTGGGCGCGGAGCAGCAGCGGGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1021
QY |||||
QY *961 GTGGGCGCGGAGCAGCAGCGGGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1020
Db 1022 ACGGCTTGTCCCCGCTGTATAGCGCGGAGACCAAGCACTTCTCTACTCTCTAGCGGACAG 1081
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Db 1682 GAGATCTGCGCAAGTTCCTGCACTGGCTGATGAGTGTGAGCTGCTGAGCTGCTGAG 1741
QY |||||
QY 1681 GAGATCTGCGCAAGTTCCTGCACTGGCTGATGAGTGTGAGCTGCTGAGCTGCTGAG 1740
Db 1742 TCTTTCTTTATGATGAGAGAGACAGTTCCTCAAAAGAGGCTCTTTTCTACCGGAAG 1801
QY |||||
QY 1741 TCTTTCTTTATGATGAGAGAGACAGTTCCTCAAAAGAGGCTCTTTTCTACCGGAAG 1800
Db 1802 AGTGTGAGAGCAAGTTGCAAGCAATTGGAATCAGACAGCACTTGAAGAGGCTGACGCTG 1861
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QY |||||
QY 2161 GCCAGAGACCGCGCGCTGAGCTGTACTTGTGCAAGTGTGAGCGGCGCGCTGAGCAG 2220
Db 2222 ACCATCCCGAGAGAGGCTCAGAGAGGTCATGCGCAGCATCTCAAAACCGAGAACAG 2281
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QY 2581 AGCTGCTGTGACGCTGTGCTACGCGACATGAGAACAGCTGTTTGGGGGATTCG 2640
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 QY 2641 CGGAGCGGCTCTCTCTGCGTTGGATGATTTCTTGTGTGACACCTACCTAC 2700
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 QY 2761 AACTTGGGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2820
 Db 2822 TTTGTTACAGATCGCGCCGACGCGCTAT 2849
 QY 2821 TTTGTTACAGATCGCGCCGACGCGCTAT 2848

RESULT 3
 ID US-08-911-312-1 STANDARD; DNA; UNC; 7029 BP.
 AC xxxxxx
 DE Sequence 1, Application US/08911312
 CC Sequence 1, Application US/08911312
 CC GENERAL INFORMATION:
 CC APPLICANT: Cech, Thomas R.
 CC APPLICANT: Lingner, Joachim
 CC APPLICANT: Nakamura, Toru
 CC APPLICANT: Chapman, Karen B.
 CC APPLICANT: Morin, Gregg B.
 CC APPLICANT: Harley, Calvin B.
 CC APPLICANT: Andrews, William
 CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
 CC NUMBER OF SEQUENCES: 170
 CC CORRESPONDENCE ADDRESS:
 CC ADDRESSEE: Townsend and Townsend and Crew LLP
 CC STREET: Two Embarcadero Center, Eighth Floor
 CC CITY: San Francisco
 CC STATE: California
 CC COUNTRY: USA
 CC ZIP: 94111-3834
 CC COMPUTER READABLE FORM:
 CC MEDIUM TYPE: Floppy disk
 CC COMPUTER: IBM PC compatible
 CC OPERATING SYSTEM: PC-DOS/MS-DOS
 CC SOFTWARE: Patent Release #1.0, Version #1.30
 CC CURRENT APPLICATION DATA:
 CC APPLICATION NUMBER: US/08/911,312
 CC FILING DATE: 14-AUG-1997
 CC CLASSIFICATION: 536
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/724,643
 CC FILING DATE: 01-OCT-1996
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/844,419
 CC FILING DATE: 18-APR-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/846,017
 CC FILING DATE: 25-APR-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/851,843
 CC FILING DATE: 06-MAY-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/854,050
 CC FILING DATE: 09-MAY-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/912,951
 CC FILING DATE: 14-AUG-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/915,503
 CC FILING DATE: 14-AUG-1997
 CC ATTORNEY/AGENT INFORMATION:

CC NAME: Elnhorn, Gregory P.
 CC REGISTRATION NUMBER: 38,440
 CC REFERENCE/DOCKET NUMBER: 015389-002500US
 CC TELECOMMUNICATION INFORMATION:
 CC TELEPHONE: (415) 576-0200
 CC TELEFAX: (415) 576-0300
 CC INFORMATION FOR SEQ ID NO: 1:
 CC SEQUENCE CHARACTERISTICS:
 CC LENGTH: 7029 base pairs
 CC TYPE: nucleic acid
 CC STRANDEDNESS: single
 CC TOPOLOGY: linear
 CC MOLECULE TYPE: cDNA
 CC FEATURE:
 CC NAME/KEY: CDS
 CC LOCATION: 782..4177
 CC OTHER INFORMATION: /product= "human telomerase reverse
 CC OTHER INFORMATION: transcriptase (hTRT)"
 CC OTHER INFORMATION: /note= "cDNA contained in plasmid
 CC OTHER INFORMATION: pGRN121"
 CC SEQUENCE 7029 BP; 1416 A; 2122 C; 2051 G; 1440 T; 0 OTHER.

Query Match 99.7%; Score 2840; DB 44; Length 7029;
 Best Local Similarity 99.9%; Pred. No. 0.00e+00;
 Matches 2843; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 718 CCGGTCGACGACGCGCTGCTGCTGCGACGAGTGGAGCCCTGGCCGACCC 777
 QY 3 CCGGTCGACGACGCGCTGCTGCTGCGACGAGTGGAGCCCTGGCCGACCC 62.
 Db 778 CCGGATCCGCGCGCTCCCGCTGCGAGCCGCTGCTGCTGCGACGACCTACCG 837
 QY 63 CCGGATCCGCGCGCTCCCGCTGCGAGCCGCTGCTGCTGCGACGACCTACCG 122
 Db 838 CGAGTGTGCGCGCGCGACGCTGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 897
 QY 123 CGAGTGTGCG 182
 Db 898 GCAGCGCGGAGACCGCGCGCTTCCGCGCGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 957
 QY 183 GCAGCGCGGAGACCGCGCGCTTCCGCGCGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 242
 Db 958 CTGGAGCGACG 1017
 QY 243 CTGGAGCGACG 302
 Db 1018 GCTGTGCGCGCGAGTGTCTGACAGTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 1077
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 Db 1078 CCGCTTCCGCTGTGCGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1137
 QY 363 CCGCTTCCGCTGTGCGAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 422
 Db 1138 GCGACGCTACCTGCGCAACACGCTGACCGACGCTGCGGCGGAGCGGCGGCGGCGCT 1197
 QY 423 GCGACGCTACCTGCGCAACACGCTGACCGACGCTGCGGCGGAGCGGCGGCGGCGCT 482
 Db 1198 GCGTGTGCGCGCGCGGCGGAGCGAGTGTGCTTACCTGTGCGGCGAGCTGGCGCTCTT 1257
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 QY 603 CCGTGTCTACGAGCG 662
 Db 1378 CGAAGCGGCTGGAACCATAGGCTCAGGAGGCGCGGCGCGCGCGCGCGCGCGCGCGCG 1437
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Db 1558 GGGCAGAGACCGGTGGAGCGAGTGAACCGTGTCTGTGTGTGTACCTGCGCAGACCCG 1617
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Qy 843 GGGAGAGACCGGTGGAGCGAGTGAACCGTGTCTGTGTGTGTACCTGCGCAGACCCG 902
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Db 1618 CGAAGAACCACTCTTTGGAGGGTGGCTCTGCGACGCGCCACCTCCACCATCCGT 1677
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Qy 903 CGAAGAACCACTCTTTGGAGGGTGGCTCTGCGACGCGCCACCTCCACCATCCGT 962
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Db 1678 GGGCGCGCAGACAGCGGGGCCCCCATCCACATCGGGGCGACAGTCCCTGGGACAC 1737
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Db 1738 GCGTGTGCCCCCGGTGTACGCGCGAGACCAAGCACTTCTACTCTCTCAGGCGACAAGA 1797
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Qy 1023 GCGTGTGCCCCCGGTGTACGCGCGAGACCAAGCACTTCTACTCTCTCAGGCGACAAGA 1082
| | | | |
Db 1798 GCACTCGGGGCGCTCTCTCTACTAGCTCTGTAGGCGCCAGCGCTGACTGGCGCTGGAG 1857
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Qy 1083 GCACTCGGGGCGCTCTCTCTACTAGCTCTGTAGGCGCCAGCGCTGACTGGCGCTGGAG 1142
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Db 1858 GCTGTGGAGACATCTTCTGGGTTCAGGAGCCTGTGATGCGCAGAGGATCCCGCAGATT 1917
| | | | |
Qy 1143 GCTGTGGAGACATCTTCTGGGTTCAGGAGCCTGTGATGCGCAGAGGATCCCGCAGATT 1202
| | | | |
Db 1918 GCCCGCGCTGCCCCAGCGCTACTGGCAATGCGGCCCTGTTCTGAGAGCTGTGGGAA 1977
| | | | |
Qy 1203 GCCCGCGCTGCCCCAGCGCTACTGGCAATGCGGCCCTGTTCTGAGAGCTGTGGGAA 1262
| | | | |
Db 1978 CCAGGCGCAGTGGCCCCCTACGCGGGGTGCTCTCAAGACGATGCCCCGCTGGAGCTGGG 2037
| | | | |
Qy 1263 CCAGGCGCAGTGGCCCCCTACGCGGGGTGCTCTCAAGACGATGCCCCGCTGGAGCTGGG 1322
| | | | |
Db 2038 CACCCGAGCAGCGGCTGTGTGCTGCGCGGAGAACCCAGGGGCTGTGGGGGCGCCCCGA 2097
| | | | |
Qy 1323 CACCCGAGCAGCGGCTGTGTGCTGCGCGGAGAACCCAGGGGCTGTGGGGGCGCCCCGA 1382
| | | | |
Db 2098 GAGAGGAGACACAGACCCCGCTGCTGTGTGAGCTGTGCTCCGACAGACAGACGCCCTG 2157
| | | | |
Qy 1383 GAGAGGAGACACAGACCCCGCTGCTGTGTGAGCTGTGCTCCGACAGACAGACGCCCTG 1442
| | | | |
Db 2158 GAGAGGAGGCTGTGCTGTGCGGGGCTGCTGCGCGGCTGGTGGCCCCAGGCTCTGGGG 2217
| | | | |
Qy 1443 GAGAGGAGGCTGTGCTGTGCGGGGCTGCTGCGCGGCTGGTGGCCCCAGGCTCTGGGG 1502
| | | | |
Db 2218 CTCGAGGACACAAAGCGCGCTCTCAGGAACCAAGAAAGTTCAATCCTCGGGGAA 2277
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Qy 1503 CTCGAGGACACAAAGCGCGCTCTCAGGAACCAAGAAAGTTCAATCCTCGGGGAA 1562
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Db 2278 GCATGCCAAGCTCTGCTGAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 2337
| | | | |
Qy 1563 GCATGCCAAGCTCTGCTGAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1622
| | | | |
Db 2338 GCTGCGGAGAGAGCCGAGGGGTGTGCTGTGCTGCGCGGAGAGACGCTGCTGGTGAAGA 2397
| | | | |
Qy 1623 GCTGCGGAGAGAGCCGAGGGGTGTGCTGTGCTGCGCGGAGAGACGCTGCTGGTGAAGA 1682
| | | | |
Db 2398 GATCCTGGCAAGTCTCTGCACTGGCTGATGATGATGATGATGATGATGATGATGATGATG 2457
| | | | |
Qy 1683 GATCCTGGCAAGTCTCTGCACTGGCTGATGATGATGATGATGATGATGATGATGATGATG 1742
| | | | |
Db 2458 TTTCTTTTATGTCAAGAGACCAAGTTCATCAAAAGAACAGGCTCTTTTCTACCGGAAGAG 2517
| | | | |
Qy 1743 TTTCTTTTATGTCAAGAGACCAAGTTCATCAAAAGAACAGGCTCTTTTCTACCGGAAGAG 1802
| | | | |

Db 2518 TGTCTGGAGCAAGTTCGAATGGAATCAGACAGCACTTGAAGAGGGTGCAGCTGCG 2577
| | | | |
Qy 1803 TGTCTGGAGCAAGTTCGAATGGAATCAGACAGCACTTGAAGAGGGTGCAGCTGCG 1862
| | | | |
Db 2578 GGAAGCTGTGGGAAGCAGAGGTGCAGGAGCATGCGGAAGCCAGGCGCCGCTGTGACGTC 2637
| | | | |
Qy 1863 GGAAGCTGTGGGAAGCAGAGGTGCAGGAGCATGCGGAAGCCAGGCGCCGCTGTGACGTC 1922
| | | | |
Db 2638 CAGACTCCGCTTATCCCAAGCCTGACGGGCTGCGGCGGATTTGTAACATGAGTACGT 2697
| | | | |
Qy 1923 CAGACTCCGCTTATCCCAAGCCTGACGGGCTGCGGCGGATTTGTAACATGAGTACGT 1982
| | | | |
Db 2698 CTTGGGAGCCAGAACGTTCCGAGAGAAAAGAGGCGGAGCTCTACCTCGAGGGTGA 2757
| | | | |
Qy 1983 CTTGGGAGCCAGAACGTTCCGAGAGAAAAGAGGCGGAGCTCTACCTCGAGGGTGA 2042
| | | | |
Db 2758 GGCACGTTCAGGGTGTCAATCAGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG 2817
| | | | |
Qy 2043 GGCACGTTCAGGGTGTCAATCAGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG 2102
| | | | |
Db 2818 TGTGCTGGGCGCTGAGAGATATCCACAGGGCGCTGGCGACCTTGTGCTGCTGGCGGC 2877
| | | | |
Qy 2103 TGTGCTGGGCGCTGAGAGATATCCACAGGGCGCTGGCGACCTTGTGCTGCTGGCGGC 2162
| | | | |
Db 2878 CAGAGACCCGCGCGCTGAGCTGACTTTGTCAAGGTGATGTGACGGGGCGGTACGACAC 2937
| | | | |
Qy 2163 CAGAGACCCGCGCGCTGAGCTGACTTTGTCAAGGTGATGTGACGGGGCGGTACGACAC 2222
| | | | |
Db 2938 CATCCCCCAGAGAGGCTCAGGAGGTCATCGGCAGATCATAAACCCAGAAACAGTA 2997
| | | | |
Qy 2223 CATCCCCCAGAGAGGCTCAGGAGGTCATCGGCAGATCATAAACCCAGAAACAGTA 2282
| | | | |
Db 2998 CTGCTGTCGCTGGGTATGCCGTGTGCCAGAAAGCCGCCATGAGGCGACGTCCGAAGGCTT 3057
| | | | |
Qy 2283 CTGCTGTCGCTGGGTATGCCGTGTGCCAGAAAGCCGCCATGAGGCGACGTCCGAAGGCTT 2242
| | | | |
Db 3058 CAAGAGCCAGCTCTTACCTTGACAGACCTCCAGCGGTACATGCGACAGTTCGTGCTCA 3117
| | | | |
Qy 2243 CAAGAGCCAGCTCTTACCTTGACAGACCTCCAGCGGTACATGCGACAGTTCGTGCTCA 2402
| | | | |
Db 3118 CTTGACAGAGACAGGCGCGGTGAGGGATGCGGTGATGAGACAGAGCTCCGCCGTA 3177
| | | | |
Qy 2403 CTTGACAGAGACAGGCGCGGTGAGGGATGCGGTGATGAGACAGAGCTCCGCCGTA 2462
| | | | |
Db 3178 TGAAGCCAGCAGTGGCTCTTACAGCTCTTCTACGCTTCATGTGACACACGCGGTGC 3237
| | | | |
Qy 2463 TGAAGCCAGCAGTGGCTCTTACAGCTCTTCTACGCTTCATGTGACACACGCGGTGC 2522
| | | | |
Db 3238 CATCAGGGGCAAGTTCCTACGTCCAGTGCAGGGGATCCCGCAGGGCTCCATCCTTCAC 3297
| | | | |
Qy 2523 CATCAGGGGCAAGTTCCTACGTCCAGTGCAGGGGATCCCGCAGGGCTCCATCCTTCAC 2582
| | | | |
Db 3298 GCTGCTCTGACGCTGTGCTACGCGCGCATGAGAACCAAGCTTTTGGCGGAGTGGGG 3357
| | | | |
Qy 2583 GCTGCTCTGACGCTGTGCTACGCGCGCATGAGAACCAAGCTTTTGGCGGAGTGGGG 2642
| | | | |
Db 3358 GGAAGGGCTCTCTGCGTTTGGTGAATGATTTCTTGTGTGACACCTCACCTCACCCA 3417
| | | | |
Qy 2643 GGAAGGGCTCTCTGCGTTTGGTGAATGATTTCTTGTGTGACACCTCACCTCACCCA 2702
| | | | |
Db 3418 CGGGAAGAACTTCTCTACGAGACCTGTGCGAGGTGTCCGATATGCTGTGCTGTGA 3477
| | | | |
Qy 2703 CGGGAAGAACTTCTCTACGAGACCTGTGCGAGGTGTCCGATATGCTGTGCTGTGA 2762
| | | | |
Db 3478 CTTGCGGAAGACAGTGGTGAACCTTCCCTGTGAAGAACAGAGGCGCTGGGGGACGGCTT 3537
| | | | |
Qy 2763 CTTGCGGAAGACAGTGGTGAACCTTCCCTGTGAAGAACAGAGGCGCTGGGGGACGGCTT 2822
| | | | |
Db 3538 TGTTCAGATGCGCGCCACGCGCTAT 3563
| | | | |
Qy 2823 TGTTCAGATGCGCGCCACGCGCTAT 2848
| | | | |

[illegible]

[illegible]

D	2818	TGTGCTGGGCGCTGGACGATATCCACAGGGCGCTGGCGACCTTGTGCTGCTGTGGGGC	2877
Q	2103	TGTGCTGGGCGCTGGACGATATCCACAGGGCGCTGGCGACCTTGTGCTGCTGTGGGGC	2162
D	2878	CCAGGACCCCGCGCTGAGCTGTACTTGTTCAGAGTGATGTACGGCGCCGTACGACAC	2937
Q	2163	CCAGGACCCCGCGCTGAGCTGTACTTGTTCAGAGTGATGTACGGCGCCGTACGACAC	2222
D	2938	CATCCCCAGGACAGGCTCACGGAGTTCATCCAGCATCATCAAAACCCAGAACGT	2997
Q	2223	CATCCCCAGGACAGGCTCACGGAGTTCATCCAGCATCATCAAAACCCAGAACGT	2282
D	2998	CTGGGTGGTGGGATATGCGGTGGTCCAGAAAGGCCCGCCATGGGCGAGTCCGAAAGGCTT	3057
Q	2283	CTGGGTGGTGGGATATGCGGTGGTCCAGAAAGGCCCGCCATGGGCGAGTCCGAAAGGCTT	2342
D	3058	CAAGAGCCACGCTCTCTACTTGTAGACAGACCTCCAGCCCTACATATCGACAGTTCGTGGCTCA	3117
Q	2343	CAAGAGCCACGCTCTCTACTTGTAGACAGACCTCCAGCCCTACATATCGACAGTTCGTGGCTCA	2402
D	3118	CCTGCAGGAGACCAAGCCCGCTGAGGGATGCCCGTGTCTATCGAGCAGAGCTCTCCCTGAA	3177
Q	2403	CCTGCAGGAGACCAAGCCCGCTGAGGGATGCCCGTGTCTATCGAGCAGAGCTCTCCCTGAA	2462
D	3178	TGAGGCGCAGAGTGGGCGCTCTTCAGACGATCTCTACGCTTCATGTGGCACCAGGCGGTGGG	3237
Q	2463	TGAGGCGCAGAGTGGGCGCTCTTCAGACGATCTCTACGCTTCATGTGGCACCAGGCGGTGGG	2522
D	3238	CATCAGGGGCAAGTCTTACGTACGTCCAGGAGGATCCGCGAGGGCTCCATCTCTCCAC	3297
Q	2523	CATCAGGGGCAAGTCTTACGTACGTCCAGGAGGATCCGCGAGGGCTCCATCTCTCCAC	2582
D	3298	GCTGCTCTGCAGCGCTGTGTCTACGGCGACATGTGAGACAACTGTTTGGGGGATTTGGCG	3357
Q	2583	GCTGCTCTGCAGCGCTGTGTCTACGGCGACATGTGAGACAACTGTTTGGGGGATTTGGCG	2642
D	3358	GGAGCGGGTGTCTCCGTGGGCTTTGGTGGATGATTTCTTGTGTGACACCTACCTCACCCA	3417
Q	2643	GGAGCGGGTGTCTCCGTGGGCTTTGGTGGATGATTTCTTGTGTGACACCTACCTCACCCA	2702
D	3418	CGCGAAAACTTCTCTCAGGACCCGTGTCCGAGAGGTGTCCCTGAGTATGGCTGCGGTGAA	3477
Q	2703	CGCGAAAACTTCTCTCAGGACCCGTGTCCGAGAGGTGTCCCTGAGTATGGCTGCGGTGAA	2762
D	3478	CTTGGCGGAAGACAGTGGTGAACCTTCCCTGTAGAAAGACGAGGCCCTGGGTGGACGGCTTT	3537
Q	2763	CTTGGCGGAAGACAGTGGTGAACCTTCCCTGTAGAAAGACGAGGCCCTGGGTGGACGGCTTT	2822
D	3538	TGTTTCAGATGCCGGGCCACGGGCTTAT	3563
Q	2823	TGTTTCAGATGCCGGGCCACGGGCTTAT	2848
RESULT 5			
ID	PCT-US99-07160-1 STANDARD; DNA; UNC; 4015 BP.		
AC	xxxxxx		
DT	Sequence 1, Application PC/TUS9907160		
DE	Sequence 1, Application PC/TUS9907160		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William H.		
CC	APPLICANT: Geron Corporation		
CC	APPLICANT: University Technology Corporation		
CC	TITLE OF INVENTION: Antisense Compositions for Detecting and Inhibiting		
CC	TITLE OF INVENTION: Telomerase Reverse Transcriptase		
CC	FILE REFERENCE: 015389-003610PC		

Query Match	99.6%	Score 2837	DB 57	Length 4015
Best Local Similarity 100.0%	0	Pre: 0.00e+00		
Matches 2837	Conservative	0	Mismatches 0	Indels 0
				Gaps 0
Db	1 GCAGGCGTGCATCTCTGTGCGACGACGTGGGAAGCCCTGACCCCGGCGCACCCCGCGATGCC	60		
Qy	12 GCAGGCGTGCATCTCTGTGCGACGACGTGGGAAGCCCTGACCCCGGCGCACCCCGCGATGCC	71		
Db	61 GCGGCGTCCCCGCGTGCAGAGCCGTGCGCTCCTCTGTCGCGACGCCATACCGGAGGTGCT	120		
Qy	72 GCGGCGTCCCCGCGTGCAGAGCCGTGCGCTCCTCTGTCGCGACGCCATACCGGAGGTGCT	131		
Db	121 GCGGCGTGCACAGTTCGTGCGGGGCGTGGGGCCCGCAGGGCGGGGCGTGGTGGCAGCGCGG	180		
Qy	132 GCGGCGTGCACAGTTCGTGCGGGGCGTGGGGCCCGCAGGGCGGGGCGTGGTGGCAGCGCGG	191		
Db	181 GGACCGGCGGCTTTCGCGCGCTGTGTGGCCAGTGCCTGTGTGTGCTGTGCTGTGGACGC	240		
Qy	192 GGACCGGCGGCTTTCGCGCGCTGTGTGGCCAGTGCCTGTGTGTGCTGTGCTGTGGACGC	251		
Db	241 ACGG	300		
Qy	252 ACGG	311		
Db	301 CCGAGTGTGTGAGAGAGGTGTGTGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	360		
Qy	312 CCGAGTGTGTGAGAGAGGTGTGTGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	371		
Db	361 GCTGCTGTGAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	420		
Qy	372 GCTGCTGTGAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	431		
Db	421 CTTGCCCAACACGATGTGACGCGACACTCTGGGGGAGGCGGGGCGTGGGGGCGTGCATGTGCG	480		

Qy	432	CTGTCCCAACAGGTGTACCGAGCGACTGTGGGGAGACGGGGGCTGTGGCTGTGG	491
Db	481	CCGCGTGGGCGAGACGTCTGGTTACCTGCTGGGAGCTGGGGCTCTTTGTGCTGG	540
Qy	492	CCGCTGGGCGAGACGTCTGGTTACCTGCTGGGACGCTGGGCTCTTTGTGCTGG	551
Db	541	GGCTCCACACTGGCTTACAGGTGTGGCGGGCGCTGTACACACTGGCGCTCCAC	600
Qy	552	GGGTCCCACTGGGCTTACAGGTGTGGGGCGCGGCTGTACACTTGGGGCTGCCAC	611
Db	601	TCAGGCGCGGCCCCCGCCACAGCTAGTGGACCCCGAAGGCGCTTGGATGCGACGGCG	660
Qy	612	TCAGGCGCGGCCCCCGCCACAGCTAGTGGACCCCGAAGGCGCTTGGATGCGACGGCG	671
Db	661	CTGGAACCTAGCTTACAGGAGGGCGGGGTCCCCCTGGGCTGTCCAGCCCCGGGTCCAG	720
Qy	672	CTGGAACCTAGCTTACAGGAGGGCGGGGTCCCCCTGGGCTGTCCAGCCCCGGGTCCAG	731
Db	721	GAGGCGCGGGGCGAGTGCAGCGCGGAAGTGTGCGCTTGGCCAAAGAGGCCACAGCGTGGCG	780
Qy	732	GAGGCGCGGGGCGAGTGCAGCGCGGAAGTGTGCGCTTGGCCAAAGAGGCCACAGCGTGGCG	791
Db	781	TGCGCTTGAGCCGAGCGGAGCGCGCCCTTGGGAGGGGTCTTGGGCCACCCGGGACGAG	840
Qy	792	TGCGCTTGAGCCGAGCGGAGCGCGCCCTTGGGAGGGGTCTTGGGCCACCCGGGACGAG	851
Db	841	GGGTGACCGGAGTGCAGCGTGTCTGTGTGTGTGTACTGTCCAGACCCCGCGAATAAG	900
Qy	852	GGGTGACCGGAGTGCAGCGTGTCTGTGTGTGTGTACTGTCCAGACCCCGCGAATAAG	911
Db	901	CACCTTTTGGAGGGGGGCGCTCTGTGGACGGCGCACTCCACCACTCCGTGGGGCGGCA	960
Qy	912	CACCTTTTGGAGGGGGGCGCTCTGTGGACGGCGCACTCCACCACTCCGTGGGGCGGCA	971
Db	961	GCACACGCGGGGGCCCCCATCCACATCGCGGCCACCGTCCCTGGGACACGCTTGTGC	1020
Qy	972	GCACACGCGGGGGCCCCCATCCACATCGCGGCCACCGTCCCTGGGACACGCTTGTGC	1031
Db	1021	CCCGGTGTACGGCGAGACCAAGACACTTCTTACTTACTTAAAGGACAAAGAGACGTGGG	1080
Qy	1032	CCCGGTGTACGGCGAGACCAAGACACTTCTTACTTACTTAAAGGACAAAGAGACGTGGG	1091
Db	1081	GGCGTCTTCTACTACGTCTCTGTAGGGCCACGCTGAGGGGCTCGGAGGCTCTGGA	1140
Qy	1092	GGCGTCTTCTACTACGTCTCTGTAGGGCCACGCTGAGGGGCTCGGAGGCTCTGGA	1151
Db	1141	GACCATCTTCTGGGTTCCAGGGCCGTGATGCCAGGAGTCCCGCAGAGTTGCCCGCGCT	1200
Qy	1152	GACCATCTTCTGGGTTCCAGGGCCGTGATGCCAGGAGTCCCGCAGAGTTGCCCGCGCT	1211
Db	1201	GGCCCAAGGCGTACTGGCAATGCGGGCCCTGTTCTGTGAGCTGTTGGGAACACGCGCA	1260
Qy	1212	GGCCCAAGGCGTACTGGCAATGCGGGCCCTGTTCTGTGAGCTGTTGGGAACACGCGCA	1271
Db	1261	GTCGCCCTAGGGGCGTCTCTCAAGACGACATCCCGGCTGCGAGCTGGGCTCACCCAG	1320
Qy	1272	GTCGCCCTAGGGGCGTCTCTCAAGACGACATCCCGGCTGCGAGCTGGGCTCACCCAG	1331
Db	1321	AGCGGCTGTCTGTGCCCGGAGAAAGCCCAAGGGCTCTGTGGCGGGCCCGAGAGAGAGA	1380
Qy	1332	AGCGGCTGTCTGTGCCCGGAGAAAGCCCAAGGGCTCTGTGGCGGGCCCGAGAGAGAGA	1391
Db	1381	CACAGACCCCGTGGCTGTGTGTGCTGCTCGCCAGACACAGCAGCCCTGGCAGGTGT	1440
Qy	1392	CACAGACCCCGTGGCTGTGTGTGCTGCTCGCCAGACACAGCAGCCCTGGCAGGTGT	1451
Db	1441	CGGCTGTGGCGGGGCTGTGCTGCGGGGCGGTGGGCCCAAGGCGTCTGGGGCTTCAGAGCA	1500
Qy	1452	CGGCTGTGGCGGGGCTGTGCTGCGGGGCGGTGGGCCCAAGGCGTCTGGGGCTTCAGAGCA	1511
Db	1501	CACAGAACCCCGTCTCTAGGAACACCAAGATTATCTCCCTGGGGAAGCATCCCAA	1560

QY	1512	CACGACGCGCGCTTCTCTCAGAAACACCAAGAAAGTTCACTCTCCCTGGGGAAGCATGCCA	1571
Db	1561	GCTCTCGCTCCAGAGAGCTGCATGCAAGATGAGCGTGGCGGACTCGCTTGACTCGACG	1620
QY	1572	GCTCTCCCTCCAGAGAGCTGCATGCAAGATGAGCGTGGCGGACTCGCTTGACTCGACG	1631
Db	1621	GAGCCCAAGGGGATGGCGTGTCTTCGGGCGGAGAGCACCTCGCTGAGGAGATCTGGC	1680
QY	1632	GAGCCCAAGGGGATGGCGTGTCTTCGGGCGGAGAGCACCTCGCTGAGGAGATCTGGC	1691
Db	1681	CAAGTCTCTGCACCTGCGCTGATGATGATGTGTAACGTGTCGAGCTGCTCAGGCTCTTCTTTTA	1740
QY	1692	CAAGTCTCTGCACCTGCGCTGATGATGATGTGTAACGTGTCGAGCTGCTCAGGCTCTTCTTTTA	1751
Db	1741	TGTCAGGAGACACAGCTTTTCCAAAAGAACAGGCTCTTTTCTTCGCGGAAGATGTCGTGAG	1800
QY	1752	TGTCAGGAGACACAGCTTTTCCAAAAGAACAGGCTCTTTTCTTCGCGGAAGATGTCGTGAG	1811
Db	1801	CAAGTTCCAAAGCATTTGGATTCAGACAGCACTTGAAGAAGGTGCAAGCTGCGGGAGCTGTC	1860
QY	1812	CAAGTTCCAAAGCATTTGGATTCAGACAGCACTTGAAGAAGGTGCAAGCTGCGGGAGCTGTC	1871
Db	1861	GGAAGCAGAGAGTCAAGCAGCATATCGGGAAGCCAGAGCCCGCCCTGCTGACGTCCAGACTCG	1920
QY	1872	GGAAGCAGAGAGTCAAGCAGCATATCGGGAAGCCAGAGCCCGCCCTGCTGACGTCCAGACTCG	1931
Db	1921	CTTTCATCCCCCAAGCCTTCAGCGGCGCTGGCGGCAGATGTGAACATGAGCACTACGTCTGGAGC	1980
QY	1932	CTTTCATCCCCCAAGCCTTCAGCGGCGCTGGCGGCAGATGTGAACATGAGCACTACGTCTGGAGC	1991
Db	1981	CAGAACGTTCCGCGAGAGAAAAAGAGGCGCGAGGCTCTCACCTTGAGGGTGAAGAGCACTGTT	2040
QY	1992	CAGAACGTTCCGCGAGAGAAAAAGAGGCGCGAGGCTCTCACCTTGAGGGTGAAGAGCACTGTT	2051
Db	2041	CAGGCTCTCAACTACAGAGGCGGCGCGGCGCCCGGCGCTCTCGGGCGGCTGTCGTCGAGG	2100
QY	2052	CAGGCTCTCAACTACAGAGGCGGCGCGGCGCCCGGCGCTCTCGGGCGGCTCTGTCGTCGAGG	2111
Db	2101	CTTGAGCATATCCACAGAGGCGCTGGCGGCACCTTGTGTCGTGTCGGGCGCCAGAGACC	2160
QY	2112	CTTGAGCATATCCACAGAGGCGCTGGCGGCACCTTGTGTCGTGTCGGGCGCCAGAGACC	2171
Db	2161	GCCCGCTGAGCTGACTTGTTCAAAGGTGGATGTGAAGGGCGGTGACAGACCATTCGCCCA	2220
QY	2172	GCCCGCTGAGCTGACTTGTTCAAAGGTGGATGTGAAGGGCGGTGACAGACCATTCGCCCA	2231
Db	2221	GGACAGGCTCAGCGAGGCTCATCCCGACGATCATCAAAACCCAGAAACAGTACTGTGTCG	2280
QY	2232	GGACAGGCTCAGCGAGGCTCATCCCGACGATCATCAAAACCCAGAAACAGTACTGTGTCG	2291
Db	2281	TTCGGTATGCGCGTGGTTCAGAAAGGCGCCCATGGGCAACGTCCGCAAGGCGCTTCAGAGCCA	2340
QY	2292	TTCGGTATGCGCGTGGTTCAGAAAGGCGCCCATGGGCAACGTCCGCAAGGCGCTTCAGAGCCA	2351
Db	2341	CGTCTTACCTTGCACAGACCTCCAGCGCTGATGACACAGTTCGTGGCTACACTCTCAGCA	2400
QY	2352	CGTCTTACCTTGCACAGACCTCCAGCGCTGATGACACAGTTCGTGGCTACACTCTCAGCA	2411
Db	2401	GACCAAGCCCGCTGAAGGATCCGCTGTCATCGACGAGAGCTCTCTCTGTAATGAGGCCAG	2460
QY	2412	GACCAAGCCCGCTGAAGGATCCGCTGTCATCGACGAGAGCTCTCTCTGTAATGAGGCCAG	2471
Db	2461	CAGTGGCGCTCTGAGAGCTTCTCTAGAGTTTCAATGTGCGCACAGCGCGTGGCGATCAAGGG	2520
QY	2472	CAGTGGCGCTTTCAGAGCTTCTCTCTAGAGTTTCAATGTGCGCACAGCGCGTGGCGATCAAGGG	2531
Db	2521	CAAGTCTTACGTCCAGTGCAGAGGAGATCCCGCAGGGGCTCTCATCTCTCAGCGTGTCTG	2580
QY	2532	CAAGTCTTACGTCCAGTGCAGAGGAGATCCCGCAGGGGCTCTCATCTCTCAGCGTGTCTG	2591
Db	2581	CAGGCTGTCTAGCGGCACATGTGAAGAACAAAGCTGTTTGGGGGATTTGGCGGGAGAGGGCT	2640
QY	2592	CAGGCTGTCTAGCGGCACATGTGAAGAACAAAGCTGTTTGGGGGATTTGGCGGGAGAGGGCT	2651

ID	RESULT	6	PCT-US99-06898-1 STANDARD: DNA; UNC: 4015 BP.
AC	xxxxxx		
DE	Sequence 1, Application PC/TUS9906898		
CC	Sequence 1, Application PC/TUS9906898		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Gaeta, Federico C.A.		
CC	APPLICANT: Geron Corporation		
CC	TITLE OF INVENTION: Methods and Compositions for Eliciting an Immune		
CC	TITLE OF INVENTION: Response to a Telomerase Antigen		
CC	FILE REFERENCE: 015389-003500PC		
CC	CURRENT APPLICATION NUMBER: PCT/US99/06898		
CC	CURRENT FILING DATE: 1999-03-30		
CC	EARLIER APPLICATION NUMBER: US 08/911,312		
CC	EARLIER FILING DATE: 1997-08-14		
CC	EARLIER APPLICATION NUMBER: US 08/912,951		
CC	EARLIER FILING DATE: 1997-08-14		
CC	EARLIER APPLICATION NUMBER: US 08/915,503		
CC	EARLIER FILING DATE: 1997-08-14		
CC	EARLIER APPLICATION NUMBER: WO PCT/US97/17618		
CC	EARLIER FILING DATE: 1997-10-01		
CC	EARLIER APPLICATION NUMBER: WO PCT/US/17885		
CC	EARLIER FILING DATE: 1997-10-01		
CC	EARLIER APPLICATION NUMBER: US 08/974,549		
CC	EARLIER FILING DATE: 1997-11-19		
CC	EARLIER APPLICATION NUMBER: US 08/974,584		
CC	EARLIER FILING DATE: 1997-11-19		
CC	NUMBER OF SEQ ID NOS: 2		
CC	SOFTWARE: Patentin Ver. 2.0		
CC	SEQ ID NO 1		
CC	LENGTH: 4015		
CC	TYPE: DNA		
CC	ORGANISM: Homo sapiens		
CC	FEATURE:		
CC	NAME/KEY: CDS		
CC	LOCATION: (56)..(3454)		
CC	OTHER INFORMATION: human telomerase reverse transcriptase (TERR)		
CC	SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.		
DB	Query Match	99.6%;	Score 2837; DB 57; Length 4015;
DB	Best Local Similarity 100.0%;	Pred. No. 0.00e+00;	
QY	Matches 2837; Conservative 0;	Mismatches 0;	Indels 0; Gaps 0.0;
DB	1	GCAGCGCGTCTCGTGGCGGACAGTGGGAAGCCCTGGCCCCGGGACACCCCGCGATGCC	60
QY	12	GCAGCGCTGCGCTCTGCTGCGAGAGTGGGAAGCCCTGGCCCCGGGACACCCCGCGATGCC	71
DB	61	GCAGCGCTCCCGCTGCCGAGCGCGTGGCGTCCCTGCTGCGACAGCCATACCGCGAGTGTCT	120
QY	72	GCAGCGCTCCCGCTGCCGAGCGCGTGGCGTCCCTGCTGCGACAGCCATACCGCGAGTGTCT	131
DB	121	GCAGCGTGGCACGTTTCGTGGCGGGCGCTGGGGGCCACAGGCGCTGGGTGGTGAAGCGCGG	180
QY	132	GCAGCGTGGCACGTTTCGTGGCGGGCGCTGGGGGCCACAGGCGCTGGGTGGTGAAGCGCGG	191

Db 181 GGAACCGGCGGCTTTCCGCCGCTGATGGCCAGTGGCTGTGCTGCTGCCCTGGAGCC 240
QY 192 GGACCCGGCGGCTTTCCGCCGCTGTGGGCCAGTGGCTGTGCTGCTGCCCTGGAGCC 251
Db 241 ACGGCGCGCGCGCGCGCGCGCTTCCTTCGCGCAGGTGTCTGCTGAGAGAGGTGGAGG 300
QY 252 ACGGCGCGCGCGCGCGCGCGCTTCCTTCGCGCAGGTGTCTGCTGAGAGAGGTGGAGG 311
Db 301 CCGAGTGTCTGAGAGGTGTGCGAGCGCGCGCGAGAGAGTGTGTGGCTTCGCGCTTCG 360
QY 312 CCGAGTGTCTGAGAGGTGTGCGAGCGCGCGAGAGAGTGTGTGGCTTCGCGCTTCGCG 371
Db 361 GCTGTGTGAGAGGGGGCG 420
QY 372 GCTGTGTGAGAGGGGGCG 431
Db 421 CCGTCCCAACACGGTGTACCGACGCTGTGGGGAGCGGGGCGTGGGGGCTGGCTGTGCG 480
QY 432 CCGTCCCAACACGGTGTACCGACGCTGTGGGGAGCGGGGCGTGGGGGCTGGCTGTGCG 491
Db 481 CCGCGTGTGGCGAGAGGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 540
QY 492 CCGCGTGTGGCGAGAGGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 551
Db 541 GCGTCCCACTGGGCTTACCAAGGTGTGGGGCGCGCGCGCGCTGTACAGCTCGCGCGCTGC 600
QY 552 GCGTCCCACTGGGCTTACCAAGGTGTGGGGCGCGCGCGCGCTGTACAGCTCGCGCGCTGC 611
Db 601 TCAGGCG 660
QY 612 TCAGGCG 671
Db 661 CTGGAACCATAGCGTCTAGAGAGCGCGGGGTCCCTGTGGGCTGTGCGACCGCGGGTGG 720
QY 672 CTGGAACCATAGCGTCTAGAGAGCGCGGGGTCCCTGTGGGCTGTGCGACCGCGGGTGG 731
Db 721 GAGGCGGGGGGAGTGTCCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780
QY 732 GAGGCGGGGGGAGTGTCCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 791
Db 781 TGGCGCTGAGACCGGAGGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 840
QY 792 TGGCGCTGAGACCGGAGGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 851
Db 841 GCGTGAACGAGTGTACCGGT 900
QY 852 GCGTGAACGAGT 911
Db 901 CACCTCTTTGGAGGTGTGCGCTCTGTGACAGCGCGCACTCCGACCGCATCGGTGGCGCGCA 960
QY 912 CACCTCTTTGGAGGTGTGCGCTCTGTGACAGCGCGCACTCCGACCGCATCGGTGGCGCGCA 971
Db 961 GCACACAGCGGGGCTTGC 1020
QY 972 GCACACAGCGGGGCTTGC 1031
Db 1021 CCGCGTGTAGCGCGAGCAAGCAAGCACTTCTTACTTCTTCAAGGCGCAAGAGAGAGAGTGTGC 1080
QY 1032 CCGCGTGTAGCGCGAGCAAGCAAGCACTTCTTACTTCTTCAAGGCGCAAGAGAGAGAGTGTGC 1091
Db 1081 GCGCTCTTCTTACTACTAGCTCTGTGAGGCCAGCTGTGAGCGGCTGTGAGCGCTGTGGA 1140
QY 1092 GCGCTCTTCTTACTACTAGCTCTGTGAGGCCAGCTGTGAGCGGCTGTGAGCGCGCTGTGGA 1151
Db 1141 GACCATCTTCTGAGTTCAGGGCGCTGTGATGCGAGGGAGTCCCGCGAGTGTGCGCGCGCT 1200
QY 1152 GACCATCTTCTGAGTTCAGGGCGCTGTGATGCGAGGGAGTCCCGCGAGTGTGCGCGCGCT 1211
Db 1201 GCCCAGACGCTACTGTGCAAAATGGGCGCGCGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1260
QY 1212 GCCCAGACGCTACTGTGCAAAATGGGCGCGCGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1271

Db 1261 GTGCCCCCTACGGGGTGTCTCTTCAAGAGCGACTGCCGCTGTGAGGTGTGCGTCAACCCAGC 1320
QY 1272 GTGCCCCCTACGGGGTGTCTCTTCAAGAGCGACTGCCGCTGTGAGGTGTGCGTCAACCCAGC 1331
Db 1321 AGCCGGTGTGTGTGCGCGGGAGAGAGCGCGCGCGCTGTGTGTGTGTGTGTGTGTGTGTGTGT 1380
QY 1332 AGCCGGTGTGTGTGCGCGGGAGAGAGCGCGCGCGCTGTGTGTGTGTGTGTGTGTGTGTGTGT 1391
Db 1381 CACAGACCCCGCTGTGCTGT 1440
QY 1392 CACAGACCCCGCTGTGCTGT 1451
Db 1441 CCGCTTGT 1500
QY 1452 CCGCTTGT 1511
Db 1501 CAAGAAAGCGCGCTTCTCTGAGAAACCAAGAGTTCATCTCCCTGGGGAGAGATGCGCAA 1560
QY 1512 CAAGAAAGCGCGCTTCTCTGAGAAACCAAGAGTTCATCTCCCTGGGGAGAGATGCGCAA 1571
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QY 1632 GAGCCAGGGGTTGGCTGT 1691
Db 1681 CAAGTTCCTGACATGGCTGTGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1740
QY 1692 CAAGTTCCTGACATGGCTGTGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1751
Db 1741 TGTACAGGAGACACAGTTCAAAAAGAACAGGCTCTTTTCTACCGGAAGTGTGTGAG 1800
QY 1752 TGTACAGGAGACACAGTTCAAAAAGAACAGGCTCTTTTCTACCGGAAGTGTGTGAG 1811
Db 1801 CAAGTTCGAAGATTGTGGAATTCAGACAGCACTTGAAGAGGTTGACGTGGGGAGCTGTG 1860
QY 1812 CAAGTTCGAAGATTGTGGAATTCAGACAGCACTTGAAGAGGTTGACGTGGGGAGCTGTG 1871
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QY 1872 GGAAGCAGAGGTGTAGCAGATGTGGGAGCGAGCGCGCGCGCGCTGTGACGTCAAGACTGCG 1931
Db 1921 CTTCATCCCAAGCCTGTAGCGGGCTGTGGCGCATGTGTGAACATGAGTACGTGTGGAGC 1980
QY 1932 CTTCATCCCAAGCCTGTAGCGGGCTGTGGCGCATGTGTGAACATGAGTACGTGTGGAGC 1991
Db 1981 CAGAAGTTCGCGAGAGAAAGAGGCGCGAGCGTCTACCTCGAGGTTGAAGCAGTGT 2040
QY 1992 CAGAAGTTCGCGAGAGAAAGAGGCGCGAGCGTCTACCTCGAGGTTGAAGCAGTGT 2051
Db 2041 CAGCGTGTCAACTAGAGAGGGGCGGGGCGCGCGCGCGCTGTGGGGCGCTGTGGCGGG 2100
QY 2052 CAGCGTGTCAACTAGAGAGGGGCGGGGCGCGCGCGCGCGCTGTGGGGCGCTGTGGCGGG 2111
Db 2101 CGTGTGAGATATCAGAGGGCTGTGGGCACTTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2160
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QY 2172 GCGCGCTGAGCTTACTTTGTCAAGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2231
Db 2221 GGAAGGCTCAGGAGGTCTATGCGCAGCATCATCAAAACCCCAAAACAGTATGCGCGCG 2280
QY 2232 GGAAGGCTCAGGAGGTCTATGCGCAGCATCATCAAAACCCCAAAACAGTATGCGCGCG 2291
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QY 2292 TCGGTATGCGGTGTGTGAGAGGCGCGCGCATGTGGCAGTGTGGAAGGCTTCAAGAGCA 2351
Db 2341 CGTCTTACTTGTACAGACCTCCAGCGGTATCATGTGAGCAGAGTGTGTGCTCACTGTGAGGA 2400


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Db 361 GCTGCTGAGAGGGGCCCGCGGGGGGGCCCCCGAGGCGCTTCACACCAAGCTGCGAGCTA 420
QY 372 GCTGCTGAGAGGGGGCCCCCGGGGGGGCCCCCGAGGCTTCACACCAAGAGCTGCGAGCTA 431
Db 421 CCTGCCCAACAGGTGACGACGCACTGCGGGGAGCGGGGGGCTGTTGCTCTCTCGC 480
QY 432 CTTGCCCAACAGGTGACGACGCACTGCGGGGAGCGGGGGGCTGTTGCTCTCTCGC 491
Db 481 CCGGCTGGGACGACGAGTGTGCTTACCTGCTGACGCTGCGGCGCTTTTGTGCTGCT 540
QY 492 CCGGCTGGGACGACGAGTGTGCTTACCTGCTGACGCTGCGGCGCTTTTGTGCTGCT 551
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Db 601 TCAGGCGCGGCGCGCGCGCGCGCGCGCTACAGCTAGTGAAGCGGCTCTGGGATGCGAAGCGGC 660
QY 612 TCAGGCGCGGCGCGCGCGCGCGCGCGCTACAGCTAGTGAAGCGGCTCTGGGATGCGAAGCGGC 671
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QY 672 CTGGAACCATAGACGTCAGAGGAGCGCGGGGTCCTCGGGGCTGCCAGCGCGGGGTGCGAG 731
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QY 732 GAGGCGGCGGGGCACTGCGCAGCGCGGAAGTCTGCGGTTGCCAAGAGGCCAGCGCTGCGGC 791
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QY 1332 AGCCGCTGTCTGTGCGCGGAGAAAGCCCAAGGCTCTGTGGGCGCGCGCGAGAGAGAGA 1391
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QY 1572 GCTCTCGCTGAGAGAGCTGAGTGGGAAGATAGGCTGGGAGTCCGCTTGGCTGCGAG 1631
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QY 1692 CAAGTCCCTGACAGTGGCTGATGAGTGTAGTGTGCTGAGCTGCTCAGGCTCTTTCTTTA 1751
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QY 1752 TGTCAGGAGACCAAGTTTCAAAAGAACAGGCTCTTTTCTTACGGAAGAGTGTCTGAG 1811
Db 1801 CAAGTTGCAAGCATTTGGAATCAGACAGCACTTGAAGAGGTGACGTGCGGAGCTGTC 1860
QY 1812 CAAGTTGCAAGCATTTGGAATCAGACAGCACTTGAAGAGGTGACGTGCGGAGCTGTC 1871
Db 1861 GGAAGCAGAGGTCAGGCGAGCATCGGGAAGCCAGCGCGCGCTGCTGAGTCCAGACTCGC 1920
QY 1872 GGAAGCAGAGGTCAGGCGAGCATCGGGAAGCCAGCGCGCGCTGCTGAGTCCAGACTCGC 1931
Db 1921 CTTCATCCCAAGGCTGACGGGCTGCGGCGCATTTGTGAATGACATGACATGCTGTGGAGC 1980
QY 1932 CTTCATCCCAAGGCTGACGGGCTGCGGCGCATTTGTGAATGACATGACATGCTGTGGAGC 1991
Db 1981 CAGAACTTCCGCAAGAGAAAGAGGCGGAGCGTCTACCTCGAGGCTGAAGGACATGTT 2040
QY 1992 CAGAACTTCCGCAAGAGAAAGAGGCGGAGCGTCTACCTCGAGGCTGAAGGACATGTT 2051
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QY 2172 GCGCGCTGAGCTGTACTTTGTCAAGGTGATGTGACGCGGCGCGTACGACACATCCCA 2231
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QY 2232 GGACAGGCTCAAGAGAGTGTATCGCCAGATCATCAAAACCCAGAAACAGTACTGGTGGC 2291
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QY 2292 TCGATATCGCTGTGTCAGAAAGCGCGCCATGGGACGTCGCAAGAGGCTTCAAGAGCA 2351
Db 2341 CGTCTTACTTTGACAGACCTTCAGCGCTACAGCTGACAGTTCGTGCTCACTTCAGAGA 2400
QY 2352 CGTCTTACTTTGACAGACCTTCAGCGCTACAGCTGACAGTTCGTGCTCACTTCAGAGA 2411
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QY 2412 GACCAAGCCCGCTGAGAGGATGCGCGTGTATGAGAGAGCTCTCCCTGGAATGAGGCCAG 2471
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QY 2472 CAGTGGCTCTTTCAGAGCTTCTCTACGCTTATGATGACCAAGCGCGCTGCGCATAGGGG 2531
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QY	672	CTGGAACTATGCTTACAGGAGGACCGGGTCCCTCCCTGGGCTGCCAGGCCCGGGTGCAG	731
Dp	721	GAGCGGGGGGGGACGTGCCAGCCGAAGTGTGCGGTGCCCAAGAGAGCCAGCGGTGGGC	780
QY	732	GAGGCGGGGGGGAGTGTCCAGCGGAAGTCTGCCGTGTGCCAAGAGAGCCAGCGCTGGGC	791
Dp	781	TGCCCCGTGAAGCCGAGCGAGCGCCCGTTGGGCGAGGGGTCTTGGGCCACCCGGCGAGAC	840
QY	792	TGCCCCGTGAGCCCGAGCGAGCGCCCGTTGGGCGAGGGGTCTTGGGCCACCCGGCGAGAC	851
Dp	841	GGGTGAGCCGAGTGAACCGTGGTTCTGTGGTGTACTGTGCACAAACCCCGGAAGAC	900
QY	852	GCGTGACCGAGTGAACCGTGGTTCTGTGGTGTACTGTGCACAAACCCCGGAAGAC	911
Dp	901	CACCTCTTTGGAGGGTGTGCGTCTCTGTGGCAGCGCCGCACTCCACCATCGTGGCGGCA	960
QY	912	CACCTCTTTGGAGGGTGTGCGTCTCTGTGGCAGCGCCGCACTCCACCATCGTGGCGGCA	971
Dp	961	GCACCAAGCGGGGCCCCCAATCCATTCGGGGCCACAGCTCCCTGGAGACGCTTGTCC	1020
QY	972	GCACCAAGCGGGGCCCCCAATCCATTCGGGGCCACAGCTCCCTGGAGACGCTTGTCC	1031
Dp	1021	CCGGGTGTAGGCGGAGGCAAGCACTTCCCTACTCTCTTCAAGCGGAGACAGAGACACTCG	1080
QY	1032	CCGGGTGTAGGCGGAGGCAAGCACTTCCCTACTCTCTTCAAGCGGAGACAGAGACACTCG	1091
Dp	1081	GCCTCTCTTCTACTACGTCTCTGTAGAGCCACAGCTGACGTGCGTCGGAGGCTGTGGA	1140
QY	1092	GCCTCTCTTCTACTACGTCTCTGTAGAGCCACAGCTGACGTGCGTCGGAGGCTGTGGA	1151
Dp	1141	GACCATCTTCTGTGGTTCAGAGCCCTTGAGATCCAGGAGACTCCCGCAGATGCCCGGCT	1200
QY	1152	GACCATCTTCTGTGGTTCAGAGCCCTTGAGATCCAGGAGACTCCCGCAGATGCCCGGCT	1211
Dp	1201	GCCCGACCGCTACTGGGAAATGGGGCCCTGTCTTGTGAGCTGTCTTGGAGACACAGCGCA	1260
QY	1212	GCCCGACCGCTACTGGGAAATGGGGCCCTGTCTTGTGAGCTGTCTTGGAGACACAGCGCA	1271
Dp	1261	GTGCGCTCTAGGGGGTGTCTCTCAAGAGACATGCCGTCGAGGCTGGGTCAACCCAGC	1320
QY	1272	GTGCGCTCTAGGGGGTGTCTCTCAAGAGACATGCCGTCGAGGCTGGGTCAACCCAGC	1331
Dp	1321	AGCGGATGTCTGTGCCGGGAGAGAGCCCAAGGCTCTGTGGCGGGCCCGGAGAGAGAGA	1380
QY	1332	AGCGGATGTCTGTGCCGGGAGAGAGCCCAAGGCTCTGTGGCGGGCCCGGAGAGAGAGA	1391
Dp	1381	CACAGACCCCGTGTGCTGTGTGACGTCTCGCCACGACACAGAGCCCTGTGACAGTGA	1440
QY	1392	CACAGACCCCGTGTGCTGTGTGACGTCTCGCCACGACACAGAGCCCTGTGACAGTGA	1451
Dp	1441	CGGGTGTGTGGGGCTGTGCGTGGCGGGGCTGTGGGCCCGGAGGCTCTGTGGGCTCCAGCA	1500
QY	1452	CGGGTGTGTGGGGCTGTGCGTGGCGGGGCTGTGGGCCCGGAGGCTCTGTGGGCTCCAGCA	1511
Dp	1501	CAAGCAAGCGCGTCTCTCAAGAAACACAAGAAGTATCTCTCTGGGGAACATGTCCAA	1560
QY	1512	CAAGCAAGCGCGTCTCTCAAGAAACACAAGAAGTATCTCTCTGGGGAACATGTCCAA	1571
Dp	1561	GCTTCGCTGCAGAGCTGACGTGTGAAGATGACGTTGGGGACTGTGCTTGGCTCGAG	1620
QY	1572	GCTTCGCTGCAGAGCTGACGTGTGAAGATGACGTTGGGGACTGTGCTTGGCTCGAG	1631
Dp	1621	GAGCCCAAGGGTGTGGTTCCTCCGCGCCGAGAGACACCTGTGCGTGAAGAGATCTTGGC	1680
QY	1632	GAGCCCAAGGGTGTGGTTCCTCCGCGCCGAGAGACACCTGTGCGTGAAGAGATCTTGGC	1691
Dp	1681	CAAGTTCCTGCAGCTGTGATGTGATGTGTATGCTGACAGCTGTCTTCTTTTA	1740
QY	1692	CAAGTTCCTGCAGCTGTGATGTGATGTGTATGCTGACAGCTGTCTTCTTTTA	1751
Dp	1741	TGTACGGAGACACGTTTCAAAAGAACAGGCTCTTTTCTACCGGAAGAGTGTGGAG	1800

QY	1752	TGTCACGGAGACCAGCTTTTCAAAAGAACAGGCTCTTTTCTTACCGGAAGAGTCTCGGAG	1811
Db	1801	CAAGTTGCAAAACATTTGATGATCAGACAGCACTTGAAGAGGTGACAGTCGGGAGCTGTC	1860
QY	1812	CAAGTTGCAAAAGATTGGATATCAGACAGCACTTGAAGAGGTGACAGTCGGGAGCTGTC	1871
Db	1861	GGAGCAGAGGTGACGACATCGGAGAGCCAGGCCCCCTGCTGACGTCCAGACTCGG	1920
QY	1872	GGAGCAGAGGTGACGACATCGGAGAGCCAGGCCCCCTGCTGACGTCCAGACTCGG	1931
Db	1921	CTTTCATCCCCAAGCCGAGGGGCTGGGGCCATTTGGATGATGATAGTGTGGGAGC	1980
QY	1932	CTTTCATCCCCAAGCCGAGGGGCTGGGGCCATTTGGATGATGATAGTGTGGGAGC	1991
Db	1981	CAGAACGTTCCCGCAGAGAAAGAGGGCCAGAGGTCTCACCTGAGGGGTAAAGCACTGTT	2040
QY	1992	CAGAACGTTCCCGCAGAGAAAGAGGGCCAGAGGTCTCACCTGAGGGGTAAAGCACTGTT	2051
Db	2041	CAGCGTCTCAACTACGAGAGCGGGGCGGCCCGGCTCTGTTGGCGCTCTGTGCTGGG	2100
QY	2052	CAGCGTCTCAACTACGAGAGCGGGGCGGCCCGGCTCTGTTGGCGCTCTGTGCTGGG	2111
Db	2101	CGTGGAGCATTCACAGAGGGGCTGGGGACACTTTCGTGTCGGGTGTTGGGGCCAGGACCC	2160
QY	2112	CGTGGAGCATTCACAGAGGGGCTGGGGACACTTTCGTGTCGGGTGTTGGGGCCAGGACCC	2171
Db	2161	GCGCGCTGAGCTGTACTTGTGTCAAGGTGATGAGCGGGCGGTACGACACATCCGCCA	2220
QY	2172	GCGCGCTGAGCTGTACTTGTGTCAAGGTGATGAGCGGGCGGTACGACACATCCGCCA	2231
Db	2221	GGACAGGCTACAGGAGGTATCGCCAGCATCATCAAAACCCAGAACAGTACTGCTGCG	2280
QY	2232	GGACAGGCTACAGGAGGTATCGCCAGCATCATCAAAACCCAGAACAGTACTGCTGCG	2291
Db	2281	TGCGTATGCGCGTGTGTCAGAAAGGCGGCCCATGGGACGTCGCCAGGCGCTTCAAGAGCCA	2340
QY	2292	TGCGTATGCGCGTGTGTCAGAAAGGCGGCCCATGGGACGTCGCCAGGCGCTTCAAGAGCCA	2351
Db	2341	CGTCTTACTTGCACAGACCTCCAGCCGTACATGCGACAGATTGCGTGGCTACCTGGAGGA	2400
QY	2352	CGTCTTACTTGCACAGACCTCCAGCCGTACATGCGACAGATTGCGTGGCTACCTGGAGGA	2411
Db	2401	GACCAACCCCGCTGAGGAGATGCCGTGCTCATCGACAGACGCTCTCCCTGAATAGGCCAG	2460
QY	2412	GACCAACCCCGCTGAGGAGATGCCGTGCTCATCGACAGACGCTCTCCCTGAATAGGCCAG	2471
Db	2461	CAGTGGCTCTTGCACGCTTCTCTTACGCTTATGTGCACACACAGCGCTGGCATCAGGGG	2520
QY	2472	CAGTGGCTCTTGCACGCTTCTCTTACGCTTATGTGCACACACAGCGCTGGCATCAGGGG	2531
Db	2521	CAGTCTTACGTCCACTGTGCAGGGGATGCCCGAGGGGCTCATCTCTCCACGCTGCTGCG	2580
QY	2532	CAGTCTTACGTCCACTGTGCAGGGGATGCCCGAGGGGCTCATCTCTCCACGCTGCTGCG	2591
Db	2581	CAGCCTGTCTACAGCGGACATGAGAAACAAGCTGTTTGGGGGATTTCGGCGGAGCGGCT	2640
QY	2592	CAGCCTGTCTACAGCGGACATGAGAAACAAGCTGTTTGGGGGATTTCGGCGGAGCGGCT	2651
Db	2641	GCTCTGCGTGTGGTGATGATTTCTTGTGTGACACCTCACCTCACCCACGCGAAAC	2700
QY	2652	GCTCTGCGTGTGGTGATGATTTCTTGTGTGAGACACTCACCTCACCCACGCGAAAC	2711
Db	2701	CTTCTCCAGAGCCCTGTGTCAGAGTGTCCCTGAGTATGGCTGTGCTGAACCTTGGGAA	2760
QY	2712	CTTCTCCAGAGCCCTGTGTCAGAGTGTCCCTGAGTATGGCTGTGCTGAACCTTGGGAA	2771
Db	2761	GACAGTGTGTAACCTTCCCTGTAGAAAGCAGAGGCCCTGGGTGGCAGCGCTTTTGTTCAGAT	2820
QY	2772	GACAGTGTGTAACCTTCCCTGTAGAAAGCAGAGGCCCTGGGTGGCAGCGCTTTTGTTCAGAT	2831
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QY	2832	GCCGGCCACGGGCTTAT 2848	

[illegible]

CC	FILE REFERENCE:	015389-003310US
CC	CURRENT APPLICATION NUMBER:	US/09/128_354
CC	CURRENT FILING DATE:	1998-08-03
CC	EARLIER APPLICATION NUMBER:	US 08/851,843
CC	EARLIER FILING DATE:	1997-05-06
CC	EARLIER APPLICATION NUMBER:	US 08/854,050
CC	EARLIER FILING DATE:	1997-05-09
CC	EARLIER APPLICATION NUMBER:	US 08/911,312
CC	EARLIER FILING DATE:	1997-08-14
CC	EARLIER APPLICATION NUMBER:	US 08/912,951
CC	EARLIER FILING DATE:	1997-08-14
CC	EARLIER APPLICATION NUMBER:	US 08/915,503
CC	EARLIER FILING DATE:	1997-08-14
CC	EARLIER APPLICATION NUMBER:	WO PCT/US97/17618
CC	EARLIER FILING DATE:	1997-10-01
CC	EARLIER APPLICATION NUMBER:	WO PCT/US97/17885
CC	EARLIER FILING DATE:	1997-10-01
CC	EARLIER APPLICATION NUMBER:	US 08/974,549
CC	EARLIER FILING DATE:	1997-11-19
CC	EARLIER APPLICATION NUMBER:	US 08/974,584
CC	EARLIER FILING DATE:	1997-11-19
CC	EARLIER APPLICATION NUMBER:	US 09/052,864
CC	EARLIER FILING DATE:	1998-03-31
CC	NUMBER OF SEQ ID NOS:	21
CC	SOFTWARE:	PatentIn Ver. 2.0
CC	SEQ ID NO 1	
CC	LENGTH:	4015
CC	TYPE:	DNA
CC	ORGANISM:	Homo sapiens
CC	FEATURE:	
CC	NAME/KEY:	CDS
CC	LOCATION:	(56)..(3454)
CC	OTHER INFORMATION:	human telomerase reverse transcriptase (hTRT) cDNA
CC	SEQUENCE	4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match	99.6%	Score 2837;	DB 52;	Length 4015;
Best Local Similarity	100.0%;	Pred. No. 0.00e+00;		
Matches 2837;	Conservative	0;	Mismatches 0;	Indels 0; Gaps 0.

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Db	61	GCGGCCTCCCGCTCCGACGCGTGCGCTCCCTGCTGGACGACTAACCG	CGA	GGATGCT	120
Oy	72	GCGGCCTCCCGCTCCGACGCGTGCGCTCCCTGCTGGACGACTAACCG	CGA	GGATGCT	131
Db	121	GCGCGTGGCAAGTTCGTGCGCGCGCTGGGGCCCCAGGGCTGGCGGCTG	TGTTG	AGCCGG	180
Oy	132	GCGCGTGGCAAGTTCGTGCGCGCGCTGGGGCCCCAGGGCTGGCGGCTG	TGTTG	AGCCGG	191
Db	181	GGACCCGGCGGCTTCCGCGCGCTGTGGCCCACTGCTGTGTGCTGGAGC	C	240	
Oy	192	GGACCCGGCGGCTTCCGCGCGCTGTGGCCCACTGCTGTGTGCTGGAGC	C	251	
Db	241	ACGGCGCGCCCGCGCGCCCTCTTCCTCGGACAGTGTCTGCGTAGAGAG	CGTGG	CGC	300
Oy	252	ACGGCGCGCCCGCGCGCCCTCTTCCTCGGACAGTGTCTGCGTAGAGAG	CGTGG	CGC	311
Db	301	CCGAGTGTGCAAGAGCTGTGTGAGCGCGGCGCAAGAAGCTGTGGCTT	CGGCTT	CGC	360
Oy	312	CCGAGTGTGCAAGAGCTGTGTGAGCGCGGCGCAAGAAGCTGTGGCTT	CGGCTT	CGC	371
Db	361	GCTGCTGACGGGGCCCCGGGGGGCCCCCGAGGCTTACACACACAGCTG	CCACGTA	420	
Oy	372	GCTGCTGACGGGGCCCCGGGGGGCCCCCGAGGCTTACACACACAGCTG	CCACGTA	431	
Db	421	CCTGGCAAACGGTGTGACGACGACACTGCGGGGAGCGGGCGGTGGGG	CGTGG	CGC	480
Oy	432	CCTGGCAAACGGTGTGACGACGACACTGCGGGGAGCGGGCGGTGGGG	CGTGG	CGC	491
Db	481	CCGCGTGGGCGACGACTGTGTTCACCTCTGGACAGCTGCGCGCTTGTG	TGCT	540	

QY 492 CCGGCTGGGGGACGACGCTGCTGTTACACTGCTGGCAGCTGCGGCTCTTTTGTCTGCT 551
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Db 721 GAGGCGCGGCG 780
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Db 781 TGCCCGTGAAGCGGAGCGGAGCG 840
QY 792 TGCCCGTGAAGCGGAGCGGAGCG 851
Db 841 GCGTGAACGAGTGAACGCTGCTGTTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 900
QY 852 GCGTGAACGAGTGAACGCTGCTGTTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 911
Db 901 CACCTCTTTGGAAGGTGTGCTGT 960
QY 912 CACCTCTTTGGAAGGTGTGCTGT 971
Db 961 GCACACGCGGCG 1020
QY 972 GCACACGCGGCG 1031
Db 1021 CCGCGTGTAGCGCGGAGACCAAGCACTTCTCTACTCTCTCTCTCTCTCTCTCTCTCTCTCTCG 1080
QY 1032 CCGCGTGTAGCGCGGAGACCAAGCACTTCTCTACTCTCTCTCTCTCTCTCTCTCTCTCTCTCG 1091
Db 1081 GCGCCT 1140
QY 1092 GCGCCT 1151
Db 1141 GACCATCTTTCTGTGGTTTCAGAGCCCTGGATGCCAGAGATCCCGCGAGATTTGGCGCGCT 1200
QY 1152 GACCATCTTTCTGTGGTTTCAGAGCCCTGGATGCCAGAGATCCCGCGAGATTTGGCGCGCT 1211
Db 1201 GCCCGAGCGCTACTGTGCAAAATGCGGCCCTGTTCTGTGAGCTGTCTTGGAAACACAGCGCA 1260
QY 1212 GCCCGAGCGCTACTGTGCAAAATGCGGCCCTGTTCTGTGAGCTGTCTTGGAAACACAGCGCA 1271
Db 1261 GTGCCCTAGGCGGTGCTCTCAAGAGCACTGCCCGCTGGAGGTGGGGTTCACCCAGC 1320
QY 1272 GTGCCCTAGGCGGTGCTCTCAAGAGCACTGCCCGCTGGAGGTGGGGTTCACCCAGC 1331
Db 1321 AGCGGTTGTGTGTGCGCGGAGAAAGCCAGAGGCTCTGTGGCGCGCGCGCGAGAGAGAGA 1380
QY 1332 AGCGGTTGTGTGTGCGCGGAGAAAGCCAGAGGCTCTGTGGCGCGCGCGCGAGAGAGAGA 1391
Db 1381 CACAGACCCCGCTGCGCTGT 1440
QY 1392 CACAGACCCCGCTGCGCTGT 1451
Db 1441 CGGCTTGTGGGGGCTGCGCTGCGCGGCTGGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1500
QY 1452 CGGCTTGTGGGGGCTGCGCTGCGCGGCTGGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1511
Db 1501 CAAGAAAGCGCGCTTCTCTCAGAGAAACCAAGAAATTCATCTCCCTGGGGAAGCATGCCAA 1560
QY 1512 CAAGAAAGCGCGCTTCTCTCAGAGAAACCAAGAAATTCATCTCCCTGGGGAAGCATGCCAA 1571
Db 1561 GCTCTCGCTGAGAGAGTGAAGTGAAGATGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1620
QY 1572 GCTCTCGCTGAGAGAGTGAAGTGAAGATGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 1631

Db 1621 GAGCCCAAGGCTTGGCTGT 1680
QY 1632 GAGCCCAAGGCTTGGCTGT 1691
Db 1681 CAAGTCTCTGACGTGGGTGATGAGT 1740
QY 1692 CAAGTCTCTGACGTGGGTGATGAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1751
Db 1741 TGTACGAGACACAGCTTCTCAAAAGACAGGCTTTTCTCAACGGAAGAGTGTGTGAG 1800
QY 1752 TGTACGAGAGACAGCTTCTCAAAAGACAGGCTTTTCTCAACGGAAGAGTGTGTGAG 1811
Db 1801 CAAGTGTCAAAAGCTTGTGAATCAGACAGCACTTAAAGAGGTGTGACGTGGCGGAGCTGT 1860
QY 1812 CAAGTGTCAAAAGCTTGTGAATCAGACAGCACTTAAAGAGGTGTGACGTGGCGGAGCTGT 1871
Db 1861 GGAAGCAGAGGTCAAGGAGCTTCGGGAAGCCAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1920
QY 1872 GGAAGCAGAGGTCAAGGAGCTTCGGGAAGCCAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1931
Db 1921 CTTATCCCAAGGCTGACGGGCTGCGCGCGATGTGTGAACATGTGACTACGTGTGGAGC 1980
QY 1932 CTTATCCCAAGGCTGACGGGCTGCGCGCGATGTGTGAACATGTGACTACGTGTGGAGC 1991
Db 1981 CAGAAAGTTCGCGCAGAGAAAAAGAGGCGCGAGCTGTACCTCAGAGGTTGAAGGCACTGT 2040
QY 1992 CAGAAAGTTCGCGCAGAGAAAAAGAGGCGCGAGCTGTACCTCAGAGGTTGAAGGCACTGT 2051
Db 2041 CAGGCTGTCAACTACGAGGCGGCG 2100
QY 2052 CAGGCTGTCAACTACGAGGCGGCG 2111
Db 2101 CCGTGAAGATATCCAGAGGCG 2160
QY 2112 CCGTGAAGATATCCAGAGGCG 2171
Db 2161 GCGCGTGAAGTGTACTTGTCAAGGT 2220
QY 2172 GCGCGTGAAGTGTACTTGTCAAGGT 2231
Db 2221 GGACAGGCTCAGAGAGTCACTGCGCACATCATCAAAAGCCAGAAACAGTACTCGTGGC 2280
QY 2232 GGACAGGCTCAGAGAGTCACTGCGCACATCATCAAAAGCCAGAAACAGTACTCGTGGC 2291
Db 2281 TCGGTATGCGGTGTCCAGAAAGCG 2340
QY 2292 TCGGTATGCGGTGTCCAGAAAGCG 2351
Db 2341 CGTCTCAACTGTACAGACACCTCCAGCGCGGTACATGCGACAGTGTGTGTGTGTGTGTGTGTGT 2400
QY 2352 CGTCTCAACTGTACAGACACCTCCAGCGCGGTACATGCGACAGTGTGTGTGTGTGTGTGTGTGT 2411
Db 2401 GACCAAGCCGCTGAGGATGCGCTGTATGAGCAAGAGCTCTCCCTGAAATGAGCGAG 2460
QY 2412 GACCAAGCCGCTGAGGATGCGCTGTATGAGCAAGAGCTCTCCCTGAAATGAGCGAG 2471
Db 2461 CAGTGGCTCTTGAAGCTCTTCTACGCTTCATGTGCACACGCGGTGCGCATCAGGGG 2520
QY 2472 CAGTGGCTCTTGAAGCTCTTCTACGCTTCATGTGCACACGCGGTGCGCATCAGGGG 2531
Db 2521 CAAATCTACGTCAAGTGTCCAGGGAATCCGAGAGGCTCCATCTCTTCACAGCTGTCTG 2580
QY 2532 CAAATCTACGTCAAGTGTCCAGGGAATCCGAGAGGCTCCATCTCTTCACAGCTGTCTG 2591
Db 2581 CAGCCTGTGTACGCGGACATGGAAGCAAGCTTTTGGCGGAGTTGGCGGAGAGCGGCT 2640
QY 2592 CAGCCTGTGTACGCGGACATGGAAGCAAGCTTTTGGCGGAGTTGGCGGAGAGCGGCT 2651
Db 2641 GCTCTGCGTTGTGTGATGATTTCTGT 2700
QY 2652 GCTCTGCGTTGTGTGATGATTTCTGT 2711

Oy	792	TGCCCCGTGAGCCGGAGGAGGAGCCCGCTTGGG6CAG6GGGTCTTG66GCCACCCGGGCGACGAC	851
Db	841	GCGTGAGACCGATGACCGGTGTTCTGTGTGTGTGTCACCTGCGCAGACCCGCCGAAGAAGC	900
Oy	852	GGGTGAGACCGAGTGAACGTTGGTTCTGTGTGTGTGTCACGTCGACGACCCGCCGAAGAAGC	911
Db	901	CACGCTTTGGAGGGGTGCGCTCTGTGGCAGGGCGCACTGCCACCCATCCGTGTGGCGCGCA	960
Oy	912	CACGCTTTGGAGGGGTGCGCTCTGTGGCAGGGCGCACTGCCACCCATCCGTGTGGCGCGCA	971
Db	961	GCACCAACGGGGGCCCCCATTCACATGCGGGGACACAGCGCTCTGGGAGACGCTTGTTC	1020
Oy	972	GCACCAACGGGGGCCCCCATTCACATGCGGGGACACAGCGCTCTGGGAGACGCTTGTTC	1031
Db	1021	CCCGGTGAGCGCCGAGACCAAGCACTTCTCTACTCTCAGCGGACAMAGAGCACTGCG	1080
Oy	1032	CCCGGTGAGCGCCGAGACCAAGCACTTCTCTACTCTCAGCGGACAMAGAGCACTGCG	1091
Db	1081	GCCCTCTTCTACTGACGCTCTGAGGCCCACTGACTGAGGGGCTCGGAGGCTGTGA	1140
Oy	1092	GCCCTCTTCTACTGACGCTCTGAGGGCCACCTGACTGAGGGGCTCGGAGGCTGTGA	1151
Db	1141	GACCACTTTTGTGGGTTCCAGAGCCCTGGATGCGCAGGAGCACTCCCGGAGGTTGCCCGCT	1200
Oy	1152	GACCACTTTTGTGGGTTCCAGAGCCCTGGATGCGCAGGAGCACTCCCGGAGGTTGCCCGCT	1211
Db	1201	GCCCCAGCGCTACTGCGCAATGCGGCCCTGTCTTGTGAGCTGTCTTGGAGACACAGCGCA	1260
Oy	1212	GCCCCAGCGCTACTGCGCAATGCGGCCCTGTCTTGTGAGCTGTCTTGGAGACACAGCGCA	1271
Db	1261	GTGCCCCATACGGGGTGTCTCTCAAGAGCACTGCCCCGTGCGAGCTGCGGTACCCGAC	1320
Oy	1272	GTGCCCCATACGGGGTGTCTCTCAAGAGCACTGCCCCGTGCGAGCTGCGGTACCCGAC	1331
Db	1321	AGCGGCTGTCTGTCCCGGGGAGAGCCCGCAGGCTCTGTGGCGAGCCCGGAGAGAGAGA	1380
Oy	1332	AGCGGCTGTCTGTCCCGGGGAGAGCCCGCAGGCTCTGTGGCGAGCCCGGAGAGAGAGA	1391
Db	1381	CACAGACCCCGCTGCGCTGTGTCAGCTGTCTCGGCACAGCACAGCAAGCCCTGTGACAGTGA	1440
Oy	1392	CACAGACCCCGCTGCGCTGTGTCAGCTGTCTCGGCACAGCACAGCAAGCCCTGTGACAGTGA	1451
Db	1441	CGGCTCTGTGGGGGCTGCTCGCGCGGGCTGTGTGCCCCAGGCTTGTGGGCTCCAGGCA	1500
Oy	1452	CGGCTCTGTGGGGGCTGCTCGCGCGGGCTGTGTGCCCCAGGCTTGTGGGCTCCAGGCA	1511
Db	1501	CAAGCAAGCGCGCTTCCGTCAGAGAACACAGAAAGTTTCATCTCCCTGGGAGACATGCCAA	1560
Oy	1512	CAGCAAGCGCGCTTCCGTCAGAGAACACAGAAAGTTTCATCTCCCTGGGAGACATGCCAA	1571
Db	1561	GCTCTCGCTGCAGAGGCTGACGTGTGAAGATGAGCGTGGCGGACTGTGGCTGTGGCTCGCAG	1620
Oy	1572	GCTCTCGCTGCAGAGGCTGACGTGTGAAGATGAGCGTGGCGGACTGTGGCTGTGGCTCGCAG	1631
Db	1621	GAGCCCAAGGGTGTGGCTGTGTCTCGGGCGGAGACACCGTCTGCTGAGAGATCTGTGC	1680
Oy	1632	GAGCCCAAGGGTGTGGCTGTGTCTCGGGCGGAGACACCGTCTGCTGAGAGATCTGTGC	1691
Db	1681	CAAGTTCCTGCACTGGCGTGAATGATGTGTGTCGTCGTCGAGCGTCTCAGGCTCTTTCTTTA	1740
Oy	1692	CAAGTTCCTGCACTGGCGTGAATGATGTGTGTCGTCGTCGAGCGTCTCAGGCTCTTTCTTTA	1751
Db	1741	TGTCAACGAGACCAAGTTTCAAAAGAACAGGCTCTTTTCTACCGGAAAGTGTGTGAG	1800
Oy	1752	TGTCAACGAGACCAAGTTTCAAAAGAACAGGCTCTTTTCTACCGGAAAGTGTGTGAG	1811
Db	1801	CAAGTTGCAAAAGCATTTGGAATCAGACAGCACTTGAAGAGGGGTGCACTGCGGAGCTGTC	1860
Oy	1812	CAAGTTGCAAAAGCATTTGGAATCAGACAGCACTTGAAGAGGGGTGCACTGCGGAGCTGTC	1871
Db	1861	GGAGCAGAGGTCAGGACGATGCGGAGACGACGAGCCCGGCTGTCTGACGTCCAGACTCG	1920
Oy	1872	GGAGCAGAGGTCAGGACGATGCGGAGACGACGAGCCCGGCTGTCTGACGTCCAGACTCG	1931

D	1931	CTTATCCCCAAGCTACAGGGGCTGGGGCCATGTGAACTATGACATGACATCTACGTGTGGAGC	1980
Q	1932	CTTATCCCCAAGCTACAGGGGCTGGGGCCATGTGAACTATGACATGACATCTACGTGTGGAGC	1991
D	1981	CAGAACGTTCCGACAGAAAAGAGGGCCAGAGGTCTCACTCGAGGGTGAAGGCACTGTT	2040
Q	1992	CAGAACGTTCCGACAGAAAAGAGGGCCAGAGGTCTCACTCGAGGGTGAAGGCACTGTT	2051
D	2041	CAGCGTCTCACTACGAGCGGGGCGGGCCCGGCGCTCTGGGCGCTCTGTGTGG	2100
Q	2052	CAGCGTCTCACTACGAGCGGGGCGGGCCCGGCGCTCTGGGCGCTCTGTGTGG	2111
D	2101	CCTGGAGATATCCACAGGGCCCTGGGGCACTTCGTGGCTGGCTGTGGGGCCAGAGACC	2160
Q	2112	CCTGGAGATATCCACAGGGCCCTGGGGCACTTCGTGGCTGGCTGTGGGGCCAGAGACC	2171
D	2161	GCCGCTGAGCTGTACTTCTTCAAGTGTGATGACAGGGCGGCTACGACACATCCCA	2220
Q	2172	GCCGCTGAGCTGTACTTCTTCAAGTGTGATGACAGGGCGGCTACGACACATCCCA	2231
D	2221	GGACAGGCTCAGGAGGTCTATGCGCCAGCATCATCAAAACCCAGAACGTACTGTGTCG	2280
Q	2232	GGACAGGCTCAGGAGGTCTATGCGCCAGCATCATCAAAACCCAGAACGTACTGTGTCG	2291
D	2281	TGGGATGCGGTGTCCAGAGAGGCCCGCCATGGCAGCGTCCGACAGGCTTCAAGAGCA	2340
Q	2292	TGGGATGCGGTGTCCAGAGAGGCCCGCCATGGCAGCGTCCGACAGGCTTCAAGAGCA	2351
D	2341	CGTCTACCTTGACAGACCTCCAGCCGTAACATGCGACAGTTCTGAGCTCACCTGACAGA	2400
Q	2352	CGTCTACCTTGACAGACCTCCAGCCGTAACATGCGACAGTTCTGAGCTCACCTGACAGA	2411
D	2401	GACCAAGCCGCTGAGGATGCGTGTCTATCGACAGAGCTCTCTGTAATGAGGCCAG	2460
Q	2412	GACCAAGCCGCTGAGGATGCGTGTCTCTATCGACAGAGAGCTCTCTGTAATGAGGCCAG	2471
D	2461	CAGTGGCCTCTGAGGCTCTTCTAGCGTTCAATGTCACACAGCGCCGAGCATCAGAGGG	2520
Q	2472	CAGTGGCCTCTGAGGCTCTTCTAGCGTTCAATGTCACACAGCGCCGAGCATCAGAGGG	2531
D	2521	CAAGTCTAGCTCCAGTGCAGCCAGGAGATCCCGAGAGGCTCATCTCTCACGCTGCTG	2580
Q	2532	CAAGTCTAGCTCCAGTGCAGCCAGGAGATCCCGAGAGGCTCATCTCTCACGCTGCTG	2591
D	2581	CAGCCTGTCTAGCGGACATGAGAAACAAGCTGTTTGGCGGGATTTGGCGGAGCGGCT	2640
Q	2592	CAGCCTGTCTAGCGGACATGAGAAACAAGCTGTTTGGCGGGATTTGGCGGAGCGGCT	2651
D	2641	GCTCTGCTTGGTGGATGATTTCTTGTGGTGCACACTCACTCACACCGAGGAAAC	2700
Q	2652	GCTCTGCTTGGTGGATGATTTCTTGTGGTGCACACTCACTCACACCGAGGAAAC	2711
D	2701	CTTCTCTAGACCCCTGGTCCGAGGTCTCCCTAGATAGTGGCTCTGTGTGAATTCGGAA	2760
Q	2712	CTTCTCTAGACCCCTGGTCCGAGGTCTCCCTAGATAGTGGCTCTGTGTGAATTCGGAA	2771
D	2761	GACAGTGTGAATCTTCCCTGTAGACAGAGGCCCTGGGTGGCACGCTTTTGTTCAGAT	2820
Q	2772	GACAGTGTGAATCTTCCCTGTAGACAGAGGCCCTGGGTGGCACGCTTTTGTTCAGAT	2831
D	2821	GCGGGCCACGGGCTAT 2837	
Q	2832	GCGGGCCACGGGCTAT 2848	

RESULT	13
ID	US-0952-919-1 STANDARD; DNA; UNC; 4015 BP
AC	xxxxxx
DT	
DE	Sequence 1, Application US/09052919
CC	Sequence 1, Application US/09052919
GENERAL INFORMATION:	

D	901	CACCTCTTTGAGAGGATCCGCTCTCTGGACAGCGCCACCTCCACCCATCCGATCGTGGCCGCA	960
Q	912	CACCTCTTTGAGAGGATCGCTCTCTGGACAGCGCCACCTCCACCCATCCGATCGTGGCCGCA	971
D	961	GCACCAAGCGGGGCCCCCATCCACATCGGGGCCACACGCTCCCTGGAGCACGCTTGTCC	1020
Q	972	GCACCAAGCGGGGCCCCCATCCACATCGGGGCCACACGCTCCCTGGAGCACGCTTGTCC	1031
D	1021	CCCGGTTACGGCGGAGACCAAGCACTTCTCTACTCTCTAGGCGACAGAGCACTGCTCG	1080
Q	1032	CCCGGTTACGGCGGAGACCAAGCACTTCTCTACTCTCTAGGCGACAGAGCACTGCTCG	1091
D	1081	GCCCTCTCTACTACGCTCTGTGAGGCCACACGCTGACGTGCGCTCGAGGCTGTGGA	1140
Q	1092	GCCCTCTCTACTACGCTCTGTGAGGCCACACGCTGACGTGCGCTCGAGGCTGTGGA	1151
D	1141	GACCATCTTCTGGGTTCCAGAGCCCTTGATGCCAGGACTCCCGAGTGTCCCGGCT	1200
Q	1152	GACCATCTTCTGGGTTCCAGAGCCCTTGATGCCAGGACTCCCGAGTGTCCCGGCT	1211
D	1201	GCCCGAGCGCTACTGGCAATGCGGCCCTGTTCTTGAGAGCTGCTTGGGAACACAGCGCA	1260
Q	1212	GCCCGAGCGCTACTGGCAATGCGGCCCTGTTCTTGAGAGCTGCTTGGGAACACAGCGCA	1271
D	1261	GTGCCCCCTACGGGGTCTCTCAAGACGCACTGCCGCTGCAGCTGGCGTACCCAGC	1320
Q	1272	GTGCCCCCTACGGGGTCTCTCAAGACGCACTGCCGCTGCAGCTGGCGTACCCAGC	1331
D	1321	AGCGGTTGTCGTGTCGCCGGGAGAGGCCACAGGGCTCTGTGGGGGGCCCCGAGAGAGAGA	1380
Q	1332	AGCGGTTGTCGTGTCGCCGGGAGAGGCCACAGGGCTCTGTGGGGGGCCCCGAGAGAGAGA	1391
D	1381	CACAGACCCCGCTGCGCTTGTGTCAGCTGTCGCCAGCACAGACCCCTGTGCAAGTGA	1440
Q	1392	CACAGACCCCGCTGCGCTTGTGTCAGCTGTCGCCAGCACAGACCCCTGTGCAAGTGA	1451
D	1441	CGGTTTGTGTCGGGGCTGCTGCGCGCGGCTGTTGCCCCAGGCTCTGTGGGCTCCAGCA	1500
Q	1452	CGGTTTGTGTCGGGGCTGCTGCGCGCGGCTGTTGCCCCAGGCTCTGTGGGCTCCAGCA	1511
D	1501	CAACGACGCGGCTCTCTCAGAAACACCAAGATTCACTCCCTGGGGAACATGACCA	1560
Q	1512	CAACGACGCGGCTCTCTCAGAAACACCAAGATTCACTCCCTGGGGAACATGACCA	1571
D	1561	GCTCTGCTGACAGAGCTGACGTGGAAGATGAGCGTGGGGACTCGCTTGGCTCGCAG	1620
Q	1572	GCTCTGCTGACAGAGCTGACGTGGAAGATGAGCGTGGGGACTCGCTTGGCTCGCAG	1631
D	1621	GAGCCACAGGGGTTGGCGTTCGCCGCCGAGAGACCGCTGCGCTGAGAGAGATCTGCG	1680
Q	1632	GAGCCACAGGGGTTGGCGTTCGCCGCCGAGAGACCGCTGCGCTGAGAGAGATCTGCG	1691
D	1681	CAAGTTCTGCATCGCTGATGATGATGTGACGTCGTCGAGCTGCTCAGTCTTTTCTTA	1740
Q	1692	CAAGTTCTGCATCGCTGATGATGATGTGACGTCGTCGAGCTGCTCAGTCTTTTCTTA	1751
D	1741	TGTCACGGAACACGTTTAAAGAAACAGGCTCTTTTCTACCGGAAGATGCTGGAG	1800
Q	1752	TGTCACGGAACACGTTTAAAGAAACAGGCTCTTTTCTACCGGAAGATGCTGGAG	1811
D	1801	CAAGTTCAAGACATTGGATTCAGACAGCACTTGAAGAGGGTGCAGCTCGCGGACCTTC	1860
Q	1812	CAAGTTCAAGACATTGGATTCAGACAGCACTTGAAGAGGGTGCAGCTCGCGGACCTTC	1871
D	1861	GGAAGCAGAGGTCAGGCAGCATCGGGAAGCCAGGCCCGCTGTGACTGCCAGCTCCG	1920
Q	1872	GGAAGCAGAGGTCAGGCAGCATCGGGAAGCCAGGCCCGCTGTGACTGCCAGCTCCG	1931
D	1921	CTTATATCCCAAGCTGACGGGCTGGGGCGGATTTGAACATGAGACTACGTGTGGAGC	1980
Q	1932	CTTATATCCCAAGCTGACGGGCTGGGGCGGATTTGAACATGAGACTACGTGTGGAGC	1991

Dp	1981	CAGAACCTTCCGAGAGAAAAAGGGCCACAGCTCTACCTCGAGGGTGAAGGCACTGT	2040
Qy	1992	CAGAACCTTCCGAGAGAAAAAGGGCCACAGCTCTACCTCGAGGGTGAAGGCACTGT	2051
Dp	2041	CAGGCTCTCACTACGAGCGGGCGGGCGCCCGGCTCTGTGGCGCTCTGTCTGGG	2100
Qy	2052	CAGGCTCTCACTACGAGCGGGCGGGCGCCCGGCTCTGTGGCGCTCTGTCTGGG	2111
Dp	2101	CTGTGAGATATCCAGAGGGCCGTGGGCACTTCGTGGCTGTGGCTGTGGCGCCAGAGACC	2160
Qy	2112	CTGTGAGATATCCAGAGGGCCGTGGGCACTTCGTGGCTGTGGCTGTGGCGCCAGAGACC	2171
Dp	2161	GCCGCTGAGCTGTACTTTGTTCAGAGGTGATGTGACGGGCGGTACGACACCATCCCCA	2220
Qy	2172	GCCGCTGAGCTGTACTTTGTTCAGAGGTGATGTGACGGGCGGTACGACACCATCCCCA	2231
Dp	2221	GGAGAGGCTACGAGAGTATGTCCAGCATATCAAAACCCAGAAACAGTACTGTGTGG	2280
Qy	2232	GGAGAGGCTACGAGAGTATGTCCAGCATATCAAAACCCAGAAACAGTACTGTGTGG	2291
Dp	2281	TGCGTATGCGGTGTGTCCAGAGGCGCCCATGAGGACGTCGCGCAAGGCTTCAAGAGCA	2340
Qy	2292	TGCGTATGCGGTGTGTCCAGAGGCGCCCATGAGGACGTCGCGCAAGGCTTCAAGAGCA	2351
Dp	2341	CGTCTTACCTTACAGACCTCCAGCCGTACATGCGACAGTTCGTGGCTCACTTCAGCA	2400
Qy	2352	CGTCTTACCTTACAGACCTCCAGCCGTACATGCGACAGTTCGTGGCTCACTTCAGCA	2411
Dp	2401	GACGAGCGGCTAGAGGATGCGTGTATGAGAGAGAGCTCTCCGTAATGAGGCGAG	2460
Qy	2412	GACGAGCGGCTAGAGGATGCGTGTATGAGAGAGAGCTCTCCGTAATGAGGCGAG	2471
Dp	2461	CAGTGGCTCTTGCAGCTCTTCTTACGCTTCAATGTGCCACAGCGCGTGCATACAGGG	2520
Qy	2472	CAGTGGCTCTTGCAGCTCTTCTTACGCTTCAATGTGCCACAGCGCGTGCATACAGGG	2531
Dp	2521	CAATCTCTACGTCCATGCGCAGGGGATCCCCAGAGGCTTCATCTCTCAGAGCTGTG	2580
Qy	2532	CAATCTCTACGTCCATGCGCAGGGGATCCCCAGAGGCTTCATCTCTCAGAGCTGTG	2591
Dp	2581	CAGGCTGTGTAGGCGGACATGAGAAACAAGTGTTCGGGGGATTCGGGCGAGGGCT	2640
Qy	2592	CAGGCTGTGTAGGCGGACATGAGAAACAAGTGTTCGGGGGATTCGGGCGAGGGCT	2651
Dp	2641	GCTCTTCGCTTGTGTGATGATTTCTTGTGTGACACTCACTCAACCCACGCGAAAC	2700
Qy	2652	GCTCTTCGCTTGTGTGATGATTTCTTGTGTGACACTCACTCAACCCACGCGAAAC	2711
Dp	2701	CTTCTCAGAGACCTGTGTGAGAGTGTCCCTAGATATGGCTGCGTGTGAACTTGGGAA	2760
Qy	2712	CTTCTCAGAGACCTGTGTGAGAGTGTCCCTAGATATGGCTGCGTGTGAACTTGGGAA	2771
Dp	2761	GACAGTGTGAATCTCCGTATGAAAGACAGAGCCCTGGGTGGACAGGCTTTTGTTCAGAT	2820
Qy	2772	GACAGTGTGAATCTCCGTATGAAAGACAGAGCCCTGGGTGGACAGGCTTTTGTTCAGAT	2831
Dp	2821	GCGGCGCCACAGGCGCTAT 2837	
Qy	2832	GCGGCGCCACAGGCGCTAT 2848	
RESULT 14			
ID	US-09-026-981-35 STANDARD; DNA; UNC; 4023 BP.		
AC	xxxxxx		
DE	Sequence 35, Application US/09026981		
CC	Sequence 35, Application US/09026981		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Meyer, Christopher M.		
CC	APPLICANT: Meyer, Christopher M.		
CC	APPLICANT: Weinberg, Robert A.		
CC	TITLE OF INVENTION: Telomerase Catalytic Subunit Gene and		
CC	NUMBER OF SEQUENCES: 52		

CC	CORRESPONDENCE ADDRESS:
CC	ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
CC	STREET: Two Millitia Drive
CC	CITY: Lexington
CC	STATE: MA
CC	COUNTRY: USA
CC	ZIP: 02173
CC	COMPUTER READABLE FORM:
CC	MEDIUM TYPE: Floppy disk
CC	COMPUTER: IBM PC compatible
CC	OPERATING SYSTEM: PC-DOS/MS-DOS
CC	SOFTWARE: Patentln Release #1.0, Version #1.30
CC	CURRENT APPLICATION DATA:
CC	APPLICATION NUMBER: US/09/026,981
CC	FILING DATE: 20-FEB-1998
CC	CLASSIFICATION: 435
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 60/064,322
CC	FILING DATE: 30-OCT-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 60/047,151
CC	FILING DATE: 20-MAY-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 60/054,549
CC	FILING DATE: 01-AUG-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 60/038,750
CC	FILING DATE: 20-FEB-1997
CC	ATTORNEY/AGENT INFORMATION:
CC	NAME: Granahan, Patricia
CC	REGISTRATION NUMBER: 32,227
CC	REFERENCE/DOCKET NUMBER: WHI97-11p4AM
CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: 781-861-6240
CC	TELEFAX: 781-861-9540
CC	INFORMATION FOR SEQ ID NO: 35:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 4023 base pairs
CC	TYPE: nucleic acid
CC	STRANDEDNESS: single
CC	TOPOLOGY: linear
SQ	SEQUENCE 4023 BP: 668 A; 1363 C; 1277 G; 715 T; 0 OTHER.
Db	Query Match 99.5%; Score 2834; DB 49; Length 4023;
Bc	Best Local Similarity 99.98%; Pred. No. 0.00e+00;
Matches	2835; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Oy	3 GGACAGCGTGGGTGTCCTGTCGCAGCATGTGGGAAGCCCTTGCCGCCACACCCTCCGATGC 62
Oy	11 GGACAGCGTGGGTGTCCTGTCGCAGCATGTGGGAAGCCCTTGCCGCCACACCCTCCGATGC 70
Db	63 CGCGCGTCCCCGCTGCGCAGCCCGTGGCGTCCCTGCTGCGAGCCACTACCGCGAGGTGC 122
Oy	71 CGCGCGTCCCCGCTGCGCAGCCCGTGGCGTCCCTGCTGCGAGCCACTACCGCGAGGTGC 130
Db	123 TGCGCGTGGCAACGTTCGTGCGGGGCCCTGGGGGCCCCAGAGGTGGCGGCTGTTGACGGCG 182
Oy	131 TGCGCGTGGCAACGTTCGTGCGGGGCCCTGGGGGCCCCAGAGGTGGCGGCTGTTGACGGCG 190
Db	183 GGGAGCCCGGGGGCTTCCGGCGCGCTGATGGGCGCCAGATGCTGGTGGCGTGGCGGAGC 242
Oy	191 GGGAGCCCGGGGGCTTCCGGCGCGCTGATGGGCGCCAGATGCTGGTGGCGTGGCGGAGC 250
Db	243 CACGGCCGCCCCCGCGCCGCCCTCTCTTCCGCGAAGTGTCTTGCTTAAGAAGCTGTGTG 302
Oy	251 CACGGCCGCCCCCGCGCGCCGCCCTCTCTTCCGCGAAGTGTCTTGCTTAAGAAGCTGTGTG 310
Db	303 CCCGAGTCTGCAAGAGCTGTGCGAAGCCGGCGGAGAAAGTGTGCTGCGCTTCCGCTTGC 362
Oy	311 CCCGAGTCTGCAAGAGCTGTGCGAAGCCGGCGGAGAAAGTGTGCTGCGCTTCCGCTTGC 370

Db	363	CGCTGCTGACAGGGGGCCCCGGGGGGGGCCCCCCCCCGAGAGCCTTACACACAGAGCTGGGACAGT	422
Qy	371	CGCTGCTGAGAGGGGGCCCCGGGGGGGGCCCCCCCCCGAGAGCCTTACACACAGCTGGGACACT	430
Db	423	ACCTGCCCAACAGAGGTGACAGGACGACACTCGGGGGAGAGGGGGGGCGTGGGGGCTGCTGTGTGC	482
Qy	431	ACCTTGCCCAACAGAGGTGACAGGACGACACTCGGGGGGGAGGGGGGGCGTGGGGGCTGCTGCTGC	490
Db	483	GGCGGCTGGGGGACAGAGCTGTGCTTACCTGCTGGACGCTGCGGCTCTTTGTGCTGG	542
Qy	491	GGCCGCTGGGGGACAGAGCTGTGCTTACCTGCTGGACAGCTGCGGCTCTTTGTGCTGG	550
Db	543	TGGTCCCAAGTGGAGCTTACAGAGTGTGGGGGCGCGGCTGTACAGAGCTCGAGCGTGGCA	602
Qy	551	TGGTCTCCCAAGTGGAGCTTACAGAGTGTGGGGGCGCGGCTGTACAGAGCTCGAGCGTGGCA	610
Db	603	CTCAGGCCCCGGCCCCCGCCACACGCTAGTGTGACCCCGAAGGCGTGTGGGATGCGAAGGG	662
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Db	663	CTTGAAGACATPAGGCTGAGGGAGGCGGGGGTCCCTGGGGCTGTGCACGCCGGGGTGGGA	722
Qy	671	CTTGAAGACATPAGGCTGAGGGAGGCGGGGGTCCCTGGGGCTGTGCACGCCGGGGTGGGA	730
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Qy	731	GGAGGCGCGGGGGGAGTGGCCAGGCCGAAGTCTCGGCTTGGCCCAAGAGGCCACAGGCGTGGCG	790
Db	783	CTTGCCCCCTGAGACCGGAGAGCGAGCCCGCTTGGGGAGGGGTCCTGGGGCCACCCGGGGACAGA	842
Qy	791	CTTGCCCCCTGAGACCGGAGAGCGAGCCCGCTTGGGGAGGGGTCCTGGGGCCACCCGGGGACAGA	850
Db	843	CGCTGTGACGAGAGTACCGCTGT	902
Qy	851	CGCTGTGACGAGAGTACCGCTGT	910
Db	903	CCACCTCTTTGGAGGGTGGCTTCTTGGGACGCGGCCACTCCCAACCATTGCGTGGGCGGC	962
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Db	963	AGCACACAGGGGGGGCCCCCAATGCACATTCGGGGGACACAGTGCCTTGGGAGCACGCCCTTGC	1022
Qy	971	AGCACACAGGGGGGGCCCCCAATGCACATTCGGGGGACACAGTGCCTTGGGAGCACGCCCTTGC	1030
Db	1023	CCCCGGGTACGGCGAGACCAACACTTCTCTACTCTCTCAGGCGACAAAGAGCAGCTGC	1082
Qy	1031	CCCCGGGTACGGCGAGACCAACACTTCTCTACTCTCTCAGGCGACAAAGAGCAGCTGC	1090
Db	1083	GGCCCTCTCTTCTACTACGTCTCTCTAAGGCCCAAGCTTACTGTGGGCTTGGAGGCTCGTGG	1142
Qy	1091	GGCCCTCTCTTCTACTACGTCTCTCTAAGGCCCAAGCTTACTGTGGGCTTGGAGGCTCGTGG	1150
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Db	1203	TGCCCCAGCGCTACTGGCAATCGCGGCCCTGTTTCTGTGAGCTGCTTGGGAACAACGCGC	1262
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Qy	1271	AGTGCCTCTAAGGGGTCTCTCTCAAAAGCAGTGGCCGGTGGAGACTCGGACACCCAG	1330
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Qy	1331	CAGCGGATGTCTGTGCCCGGAGAAAGCCCAAGAGCTGTGTGGCGGCCCCGACGAGAGAGG	1390
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CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC REGISTRATION NUMBER: 36,429
CC NAME: Apple, Randolph Ted
CC TELECOMMUNICATION INFORMATION:
CC REFERENCE/DOCKET NUMBER: 015389-002610US
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 343:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4037 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 56..3454
CC OTHER INFORMATION: /note= "refined sequence of hprt cDNA"
SQ SEQUENCE 4037 BP; 682 A; 1361 C; 1276 G; 714 T; 4 OTHER.

Query Match 99.5%; Score 2833; DB 47; Length 4037;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 2835; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 1 GCACGCTGCTCTGCTGCGCAGTGGGAAGCCCTGGCCCCCGCGAGATGCC 60
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Db 61 GCGGCTCTCCCGCTGCGAGCGCTGCGCTCTGCTGCGAGCAGTACCGCGAGTCT 120
Qy 72 GCGGCTCTCCCGCTGCGAGCGCTGCGCTCTGCTGCGAGCAGTACCGCGAGTCT 131
Db 121 GCGGCTGCGCAGTCTGCTGCGCGCTGCGCGCCAGGGCTGGCGGTGTGTCAGCGCG 180
Qy 132 GCGGCTGCGCAGTCTGCTGCGCGCTGCGCGCCAGGGCTGGCGGTGTGTCAGCGCG 191
Db 181 GGACCGCGGCGCTTCCGCGCGCTGCTGCGCGCAAGTCCCTGCTGCTGCTGCGCG 240
Qy 192 GGACCGCGGCGCTTCCGCGCGCTGCTGCGCGCAAGTCCCTGCTGCTGCTGCGCG 251
Db 241 ACGGCGCGCGCGCGCGCGCTTCCGCGCGAGTGTCTGCGCGCAAGAGAGTGTGGC 300
Qy 252 ACGGCGCGCGCGCGCGCGCTTCCGCGCGAGTGTCTGCGCGCAAGAGAGTGTGGC 311
Db 301 CCGAGTCTGAGAGGCTGTGCGAGCGCGCGCGCAAGAACGTGCTGCGCTTCCGCTTCC 360
Qy 312 CCGAGTCTGAGAGGCTGTGCGAGCGCGCGCGCAAGAACGTGCTGCGCTTCCGCTTCC 371
Db 361 GCTCTGAGAGCG 420
Qy 372 GCTCTGAGAGCG 431
Db 421 CCTGCCAAGCGGTGAGCGGAGCTGCGGGGAGCGGGGCGGTGGGGGCTGCTGGCG 480
Qy 432 CCTGCCAAGCGGTGAGCGGAGCTGCGGGGAGCGGGGCGGTGGGGGCTGCTGGCG 491
Db 481 CCGGCTGGGCGAGAGCTGTGCTTCACTGCTGCGACGCTGCGCGCTTGTGCTGGT 540
Qy 492 CCGGCTGGGCGAGAGCTGTGCTTCACTGCTGCGACGCTGCGCGCTTGTGCTGGT 551

Db 541 GGTCTCCAGCTGCGCTTACCAAGTGTGCGGGCGCGCGCTGTACCACTCGCGCTGCCAC 600
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Db 601 TCAGGCG 650
Qy 612 TCAGGCG 671
Db 661 CTGGAACCATAGCTGAGGAGGCGCGGGGTCCCTGGGCGCTGCCAGCCCGGGTGGAG 720
Qy 672 CTGGAACCATAGCTGAGGAGGCGCGGGGTCCCTGGGCGCTGCCAGCCCGGGTGGAG 731
Db 721 GAGCGGGGGGGGAGTGTCCAGCGCAAGTCTGCGCTTCCCAAGAGGCCCGAGCGCTGCC 780
Qy 732 GAGCGGGGGGGGAGTGTCCAGCGCAAGTCTGCGCTTCCCAAGAGGCCCGAGCGCTGCC 791
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Qy 912 CACCTTTTGGAGGGTCCGCTCTGTGCGAGCGCGCACTCCCAACCATCCGTGGGCGCGCA 971
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Qy 972 GCACGACGCGGGCG 1031
Db 1021 CCGGCTGAGCG 1080
Qy 1032 CCGGCTGAGCG 1091
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Qy 1272 GTGCGCTTACGGGGTCTCTCAAGACGCACTGCGCGCGCGCGCGCGCGCGCGCGCG 1331
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Qy 1332 AGCGGCTGTGCTGCGCGGGGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGAG 1391
Db 1381 CACAGACCG 1440
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Db 1441 CCGCTTGTGCGGGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1500
Qy 1452 CCGCTTGTGCGGGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1511
Db 1501 CCAAGGAGCGCGCTTCTCAAGAGACACCAAGAAATATATCCCTGGGGAAGATGCGCAA 1550
Qy 1512 CCAAGGAGCGCGCTTCTCAAGAGACACCAAGAAATATATCCCTGGGGAAGATGCGCAA 1571
Db 1561 GCTCTGCTGAGAGAGCTGAGCTGTGAAGATGAGCGTCCGGGACTGCGCTTGGCTGCCAG 1620
Qy 1572 GCTCTGCTGAGAGAGCTGAGCTGTGAAGATGAGCGTCCGGGACTGCGCTTGGCTGCCAG 1631
Db 1621 GAGCCAGAGGGGTGTGTGTGTCGCGCGCGAGAGCAGCGCTGCTGCGTGAAGAGATCTGGC 1680

 WIREIMAGE (TM)

Release 3.1A John F. Collins, Biocomputing Research Unit.
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MSPrch_PP protein - protein database search, using Smith-Waterman algorithm
 Run on: Tue Jun 27 15:00:28 2000; MasPar time 54.94 Seconds
 Tabular output not generated. 794.104 Million cell updates/sec

Title: >US-08-951-733-14
 Description: (1-949) from US08951733.pep
 Perfect Score: 7113
 Sequence: 1 HASGRCVLRITWEALAPAT.....PVEDEALGRTAFVQPAHGL 949

Scoring table:
 PAM 150
 Gap 11

Searched: 380756 seqs, 45976785 residues

Post-processing: Minimum Match 0%
 Listing first 45 summaries

Database: a-pending
 1:P9.2:U60.3:U7.4:U80.5:U81.6:U82.7:U83.8:U84A.9:U84B
 10:U85.11:U86.12:U87.13:U88.14:U89.15:U90.16:U91.17:U92
 18:NEWP.19:NEWU6.20:NEWU7.21:NEWU8.22:NEWU9

Statistics: Mean 40.242; Variance 192.047; scale 0.210

Pred. No. is the number of results predicted by chance to have a
 score greater than or equal to the score of the result being printed,
 and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
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2	7113	100.0	1154	14	US-08-951-Sequence 20, Applicati	0.00e+00
3	7096	99.8	1189	14	US-08-974-Sequence 613, Applicat	0.00e+00
4	7096	99.8	1189	14	US-08-912-Sequence 325, Applicat	0.00e+00
5	7096	99.8	1189	14	US-08-911-Sequence 34, Applicati	0.00e+00
6	7096	99.8	1189	14	US-08-911-Sequence 34, Applicati	0.00e+00
7	7096	99.8	1200	14	US-08-974-Sequence 612, Applicat	0.00e+00
8	7096	99.8	1200	14	US-08-911-Sequence 33, Applicati	0.00e+00
9	7096	99.8	1200	14	US-08-911-Sequence 32, Applicati	0.00e+00
10	7096	99.8	1200	14	US-08-912-Sequence 32, Applicati	0.00e+00
11	7096	99.8	1285	14	US-08-974-Sequence 600, Applicati	0.00e+00
12	7096	99.8	1285	14	US-08-911-Sequence 32, Applicati	0.00e+00
13	7096	99.8	1285	14	US-08-912-Sequence 314, Applicat	0.00e+00
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15	7096	99.6	1407	14	US-08-911-Sequence 55, Applicati	0.00e+00
16	7096	99.6	1407	14	US-08-912-Sequence 334, Applicati	0.00e+00
17	7096	99.6	1407	14	US-08-911-Sequence 55, Applicati	0.00e+00
18	7096	99.6	1407	14	US-08-974-Sequence 628, Applicati	0.00e+00
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21	6954	97.8	1132	22	US-09-108-Sequence 2, Applicatio	0.00e+00

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38	6938	97.5	948	22	US-09-108-Sequence 42, Applicati	0.00e+00
39	6938	97.5	1096	22	US-09-108-Sequence 44, Applicati	0.00e+00
40	6736	94.7	1104	22	US-09-108-Sequence 48, Applicati	0.00e+00
41	6725	94.5	936	22	US-09-108-Sequence 48, Applicati	0.00e+00
42	6725	94.5	1084	22	US-09-108-Sequence 50, Applicati	0.00e+00
43	6725	94.5	1120	22	US-09-108-Sequence 46, Applicati	0.00e+00
44	6580	92.5	1165	22	US-09-108-Sequence 64, Applicati	0.00e+00
45	6580	92.5	1165	22	US-09-108-Sequence 66, Applicati	0.00e+00

ALIGNMENTS

RESULT 1	US-08-951-733-14	STANDARD:	PRT:	949 AA.
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DT				
XX				
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CC	Sequence 14, Application US/08951733			
CC	GENERAL INFORMATION:			
CC	APPLICANT: Harrington, Lea A.			
CC	APPLICANT: Robinson, Murray O.			
CC	TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS			
CC	NUMBER OF SEQUENCES: 44			
CC	CORRESPONDENCE ADDRESS:			
CC	ADDRESS: Amgen Inc.			
CC	STREET: One Amgen Center Drive			
CC	CITY: Thousand Oaks			
CC	STATE: CA			
CC	COUNTRY: USA			
CC	ZIP: 91320-1789			
CC	COMPUTER READABLE FORM:			
CC	MEDIUM TYPE: Floppy disk			
CC	COMPUTER: IBM PC compatible			
CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
CC	SOFTWARE: Patent Release #1.0, Version #1.30			
CC	CURRENT APPLICATION DATA:			
CC	APPLICATION NUMBER: US/08/951,733			
CC	FILING DATE: 16-OCT-1997			
CC	CLASSIFICATION: 435			
CC	PRIOR APPLICATION DATA:			
CC	APPLICATION NUMBER: US 08/873,039			
CC	FILING DATE: 11-JUN-1997			
CC	PRIOR APPLICATION DATA:			
CC	APPLICATION NUMBER: US 08/751,189			
CC	FILING DATE: 15-NOV-1996			
CC	ATTORNEY/AGENT INFORMATION:			
CC	NAME: Oleksi, Nancy A.			
CC	REGISTRATION NUMBER: 34,688			
CC	REFERENCE/DOCKET NUMBER: A-433B			
CC	TELECOMMUNICATION INFORMATION:			
CC	TELEPHONE: (805) 447-6504			
CC	TELEFAX: (805) 499-8011			
CC	INFORMATION FOR SEQ ID NO: 14:			

CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 949 amino acids
CC TYPE: amino acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
SO SEQUENCE 949 AA; 106370 MW; 4628597 CN;

Query Match 100.0%; Score 7113; DB 14; Length 949;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 949; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 HASGRCVLTWTWALPATPAMPAPRCRAVRSLSLSHREVLPLATFVRRLGPGQWRL 60
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Db 481 WQYVGFRACLRRLVPPGLWGSRNERRFLNKTFTSLGKNAKLSQELTWKMSVSDCA 540
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QY 541 WLRSPPGVGCPAAEHRLRELLAKFLHMLMSYVVELLSEFEVVTETQKNLFEYRK 600
Db 601 SVMSKLOSIGIRHLKRVOLRELSAEVROHREARPALTSRLRFIPKPGRLRIVMNDY 660
QY 601 SVMSKLOSIGIRHLKRVOLRELSAEVROHREARPALTSRLRFIPKPGRLRIVMNDY 660
Db 661 VVGARTTREREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
QY 661 VVGARTTREREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
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QY 721 AODPPPELVFKVNVNTAYDITIPODRLTEVASTIKPONTYCVRRYAVVOAAAGHARKA 780
Db 781 FKSHVSTLTLDQPYMRQFVAHIAQETSPLRDAVVIQESSLSLEASSGAFDVFRLRMCHAAV 840
QY 781 FKSHVSTLTLDQPYMRQFVAHIAQETSPLRDAVVIQESSLSLEASSGAFDVFRLRMCHAAV 840
Db 841 RIRKSVYQCGIGIPQSSILSTLCSLCYGDMEKFLFAGIRRDGILLRLVDFLLVTHLT 900
QY 841 RIRKSVYQCGIGIPQSSILSTLCSLCYGDMEKFLFAGIRRDGILLRLVDFLLVTHLT 900
Db 901 HAKFTLTLVKGVEYGCYVNLKRTVNFPEDEALGTAFAVQMPARGL 949

QY 901 HAKFTLTLVKGVEYGCYVNLKRTVNFPEDEALGTAFAVQMPARGL 949

RESULT 2
ID US-08-951-733-20 STANDARD; PRT: 1154 AA.
AC xxxxxx
XX
XX
XX

DE Sequence 20, Application US/08951733

CC Sequence 20, Application US/08951733
CC GENERAL INFORMATION:
CC APPLICANT: Harrington, Lea A.
CC APPLICANT: Robinson, Murray O.
CC TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS
CC NUMBER OF SEQUENCES: 44
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Amgen Inc.
CC STREET: One Amgen Center Drive
CC CITY: Thousand Oaks
CC STATE: CA
CC COUNTRY: USA
CC ZIP: 91320-1789

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/951,733
CC FILING DATE: 16-OCT-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/873,039
CC FILING DATE: 11-JUN-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/751,189
CC FILING DATE: 15-NOV-1996
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Oleski, Nancy A.
CC REGISTRATION NUMBER: 34,688
CC REFERENCE/DOCKET NUMBER: A-433B
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (805) 447-6504
CC TELEFAX: (805) 499-8011
CC INFORMATION FOR SEQ ID NO: 20:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1154 amino acids
CC TYPE: amino acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC SEQUENCE 1154 AA; 129326 MW; 6842246 CN;

Query Match 100.0%; Score 7113; DB 14; Length 1154;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 949; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 HASGRCVLTWTWALPATPAMPAPRCRAVRSLSLSHREVLPLATFVRRLGPGQWRL 60
QY 1 HASGRCVLTWTWALPATPAMPAPRCRAVRSLSLSHREVLPLATFVRRLGPGQWRL 60
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QY 121 FGFALLDGAAGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGDVYLHLLARCAL 180
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Db 241 PGARRRGSGASRSLPLPKRRRGAPAPPERTPVQSGSWAHPGRTGSPSDRGFCVSPARP 300
QY 241 PGARRRGSGASRSLPLPKRRRGAPAPPERTPVQSGSWAHPGRTGSPSDRGFCVSPARP 300
Db 301 ABEATSEGAISGTRHSHPSVGRONHAGPSTSPRPMDTPCBPVYAETKHFLYSSGDK 360
QY 301 ABEATSEGAISGTRHSHPSVGRONHAGPSTSPRPMDTPCBPVYAETKHFLYSSGDK 360
Db 361 EOLRPSLSSLRSLGARGLVETITLGSRPWMPGTPRRLPRLPORYWQMRPLFLELLG 420
QY 361 EOLRPSLSSLRSLGARGLVETITLGSRPWMPGTPRRLPRLPORYWQMRPLFLELLG 420
Db 421 NHAOCPPGVLLKTHCPRLAAVTTPAAGVCAREKPGOSVAAPBEEDTDPRLVQLLRQHSPP 480
QY 421 NHAOCPPGVLLKTHCPRLAAVTTPAAGVCAREKPGOSVAAPBEEDTDPRLVQLLRQHSPP 480
Db 481 WQYVGFRACLRRLVPPGLWGSRNERRFLNKTFTSLGKNAKLSQELTWKMSVSDCA 540
QY 481 WQYVGFRACLRRLVPPGLWGSRNERRFLNKTFTSLGKNAKLSQELTWKMSVSDCA 540
Db 541 WLRSPPGVGCPAAEHRLRELLAKFLHMLMSYVVELLSEFEVVTETQKNLFEYRK 600
QY 541 WLRSPPGVGCPAAEHRLRELLAKFLHMLMSYVVELLSEFEVVTETQKNLFEYRK 600
Db 601 SVMSKLOSIGIRHLKRVOLRELSAEVROHREARPALTSRLRFIPKPGRLRIVMNDY 660
QY 601 SVMSKLOSIGIRHLKRVOLRELSAEVROHREARPALTSRLRFIPKPGRLRIVMNDY 660
Db 661 VVGARTTREREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
QY 661 VVGARTTREREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
Db 721 AODPPPELVFKVNVNTAYDITIPODRLTEVASTIKPONTYCVRRYAVVOAAAGHARKA 780
QY 721 AODPPPELVFKVNVNTAYDITIPODRLTEVASTIKPONTYCVRRYAVVOAAAGHARKA 780
Db 781 FKSHVSTLTLDQPYMRQFVAHIAQETSPLRDAVVIQESSLSLEASSGAFDVFRLRMCHAAV 840
QY 781 FKSHVSTLTLDQPYMRQFVAHIAQETSPLRDAVVIQESSLSLEASSGAFDVFRLRMCHAAV 840
Db 841 RIRKSVYQCGIGIPQSSILSTLCSLCYGDMEKFLFAGIRRDGILLRLVDFLLVTHLT 900
QY 841 RIRKSVYQCGIGIPQSSILSTLCSLCYGDMEKFLFAGIRRDGILLRLVDFLLVTHLT 900
Db 901 HAKFTLTLVKGVEYGCYVNLKRTVNFPEDEALGTAFAVQMPARGL 949

181 FVLVAPSCAYOVCBPRLVQLGATATARRPPPHASGPRRLGCRANMNSVREAGVPLGPA 240
181 FVLVAPSCAYOVCBPRLVQLGATATARRPPPHASGPRRLGCRANMNSVREAGVPLGPA 240
241 PGARRRGSSASRLPLPKRPRRGAAPEPERTPVGGGSAHAPGRTGSPDRGCVVSPARP 300
241 PGARRRGSSASRLPLPKRPRRGAAPEPERTPVGGGSAHAPGRTGSPDRGCVVSPARP 300
301 AEATSLGALSGTRHSHPSVGRQHHAAPPSTSRPPRMDTPCPPVYAEKHKFLYSSGDK 360
301 AEATSLGALSGTRHSHPSVGRQHHAAPPSTSRPPRMDTPCPPVYAEKHKFLYSSGDK 360
301 AEATSLGALSGTRHSHPSVGRQHHAAPPSTSRPPRMDTPCPPVYAEKHKFLYSSGDK 360
361 EQLRRSFLLSRLSPSLTARLRYETIFLGSRRPMGRTRRRLRLQRTWQMPLELLIG 420
361 EQLRRSFLLSRLSPSLTARLRYETIFLGSRRPMGRTRRRLRLQRTWQMPLELLIG 420
421 NHAOCYGVLLKTHCPRLAAVTPAAGVCAREKPGSSVAAPEEDDPRLVOLLQHSPP 480
421 NHAOCYGVLLKTHCPRLAAVTPAAGVCAREKPGSSVAAPEEDDPRLVOLLQHSPP 480
481 MOYGFVACLRRLVPCGLMWSRHNERRFLANTKFFISLGHAKLSLQELTWKMSVRDCA 540
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541 WLRRSPGVCPAAHRLREELIAKELHMLMSVYVELLSRFEYETTFQKNRLFYRK 600
541 WLRRSPGVCPAAHRLREELIAKELHMLMSVYVELLSRFEYETTFQKNRLFYRK 600
601 SVWSKLSIGIRQHLKRYQLRELSEAEVROHREARPALITSRLRFPKPDGLRIVNMDY 660
601 SVWSKLSIGIRQHLKRYQLRELSEAEVROHREARPALITSRLRFPKPDGLRIVNMDY 660
661 VVGATFPRERKRAERLTSRVKALFSLVNERARBPGLGASVGLDDIHRANRTFVLVR 720
661 VVGATFPRERKRAERLTSRVKALFSLVNERARBPGLGASVGLDDIHRANRTFVLVR 720
721 AADPELTYFVKVDYTGAVDTIPDRLETVASIIKPNQTVVRRYAVVQKRAHSHVKA 780
721 AADPELTYFVKVDYTGAVDTIPDRLETVASIIKPNQTVVRRYAVVQKRAHSHVKA 780
781 FKSHVSTLTDLPYMQFVAHLQETSPLRDVAVIEQSSSLNASSGLDPVFLRFCHHAV 840
781 FKSHVSTLTDLPYMQFVAHLQETSPLRDVAVIEQSSSLNASSGLDPVFLRFCHHAV 840
841 RIRGSYVQCOGIPQGSILSTLLCSLCYGDMEKLFAGIRRDGLLRVYDDELVTPLHT 900
841 RIRGSYVQCOGIPQGSILSTLLCSLCYGDMEKLFAGIRRDGLLRVYDDELVTPLHT 900
901 HAKTFLRLTVGVPYEGCVNLRKTVNFPVDEALGTAFTQMPAHGL 949
901 HAKTFLRLTVGVPYEGCVNLRKTVNFPVDEALGTAFTQMPAHGL 949

CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/974,549
CC FILING DATE: 19-NOV-1997
CC CLASSIFICATION: 536
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC
CC APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC
CC APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: NO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: NO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-00261005
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SPO ID NO: 613:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1189
CC OTHER INFORMATION: /note="fusion protein composed of
CC OTHER INFORMATION: melittin signal sequence and full length
CC OTHER INFORMATION: htrt protein"
CC
CC SEQUENCE 1189 AA: 135179 MW: 7256545 CN;
CC
CC Query Match 99.8%; Score 7096; DB 14; Length 1189;
CC Best Local Similarity 99.9%; Pred. No. 0.00e+00;
CC Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 37 ASTORCVLLRTWELALPATPAMPAPRCRAVRSLLRSHYREVLPATFVRRLGPOGRHLY 96

QY 2 ASGQRCVLLRTWEALAPATPAMPAPRCRAVRSLSHREVLPLATFVRRLDPQGRRLV 61
DB 97 QRGDPAAFRALVAQCLVCVPMWDAARPPAPSPFROVSCLELVARVLQRLCEGAKNVIAF 156
QY 62 QRGDPAAFRALVAQCLVCVPMWDAARPPAPSPFROVSCLELVARVLQRLCEGAKNVIAF 121
DB 157 GFALLDGAARGGPEEATTSVRSYLPNTVDALGSGAMGILLRRVGDVLYHLARCALEF 216
QY 122 GFALLDGAARGGPEEATTSVRSYLPNTVDALGSGAMGILLRRVGDVLYHLARCALEF 181
DB 217 VLVAPSCAYOVCEPPLYOIGAATOARPPAPSPRRRLGGERAMNSVRAVPLGIPAP 276
QY 182 VLVAPSCAYOVCEPPLYOIGAATOARPPAPSPRRRLGGERAMNSVRAVPLGIPAP 241
DB 277 GARRRGGSASRSPLPKPRPRGAAPPEERTPVQGSWAHPGRTGSPDRGFCVSPARPA 336
QY 242 GARRRGGSASRSPLPKPRPRGAAPPEERTPVQGSWAHPGRTGSPDRGFCVSPARPA 301
DB 337 EEATSLLEGALSGTRHSHPSVGRQHHAGPSTSRPPRMDTPCPVYAETKHEFLYSSGDKE 396
QY 302 EEATSLLEGALSGTRHSHPSVGRQHHAGPSTSRPPRMDTPCPVYAETKHEFLYSSGDKE 361
DB 397 QLRPSFLSLSLRSLTGARLVETIFLGSPPMWPGRPLRPLPORYMOMRPLFLELGN 456
QY 362 QLRPSFLSLSLRSLTGARLVETIFLGSPPMWPGRPLRPLPORYMOMRPLFLELGN 421
DB 457 HAQCPYGLVLTHTCPPLAAVTPAAGVCARREKPGQSVAAPEEDTDPRRLVOLLROHSSPW 516
QY 422 HAQCPYGLVLTHTCPPLAAVTPAAGVCARREKPGQSVAAPEEDTDPRRLVOLLROHSSPW 481
DB 517 QVYGFYRACLRRLVPPGLMWSRNNRRFLNNTKFTSLGHAHLSLOELTWKMSVRCAM 576
QY 482 QVYGFYRACLRRLVPPGLMWSRNNRRFLNNTKFTSLGHAHLSLOELTWKMSVRCAM 541
DB 577 LRSPGVGCVPAEHLRREELAKFLHMLMSVYVELLRSEFFVYETTFQKNLFFYRKS 636
QY 542 LRSPGVGCVPAEHLRREELAKFLHMLMSVYVELLRSEFFVYETTFQKNLFFYRKS 601
DB 637 VMSKLOSIGIRQLKRVQLELSEAEVROHREARPALTSRLRFIPKPDGLRPIVMNDVY 696
QY 602 VMSKLOSIGIRQLKRVQLELSEAEVROHREARPALTSRLRFIPKPDGLRPIVMNDVY 661
DB 697 VGARTRERERARERLTSRVKALTSVLYNERARRPGLLGASVGLDDIHRAMRTFVLRVA 756
QY 662 VGARTRERERARERLTSRVKALTSVLYNERARRPGLLGASVGLDDIHRAMRTFVLRVA 721
DB 757 QDPPPELYEYKVDVGTADYDIIPQDRLTEVYASIIKPPONTYCVRRYAVVQKAAHGRKAF 816
QY 722 QDPPPELYEYKVDVGTADYDIIPQDRLTEVYASIIKPPONTYCVRRYAVVQKAAHGRKAF 781
DB 817 KSHVSTLTDLPQPMRQFVAHLOETSPLRDAVYIEQSSSLNEASSGLFDVFLRPMCHHAAR 876
QY 782 KSHVSTLTDLPQPMRQFVAHLOETSPLRDAVYIEQSSSLNEASSGLFDVFLRPMCHHAAR 841
DB 877 IRGKSYVOOGIPQGSILSLCYGDMENLFGIRRDGILLRLYDDEFLVYTHLTH 936
QY 842 IRGKSYVOOGIPQGSILSLCYGDMENLFGIRRDGILLRLYDDEFLVYTHLTH 901
DB 937 AKTFELTVRGVPEYGCYVNLKRTVNFPEVEDALGTAFAVQPAHGL 984
QY 902 AKTFELTVRGVPEYGCYVNLKRTVNFPEVEDALGTAFAVQPAHGL 949

RESULT 4
ID US-08-912-951-325 STANDARD: PRT: 1189 AA.
AC xxxxxx
XX
XX
XX
XX
XX
XX
XX

Sequence 325, Application US/08912951

CC Sequence 325, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin H.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESS: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent in Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-00260005
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 325:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
SQ

Query Match 99.8%; Score 7096; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 37 ASTQRCVLLRTWEALAPATPAMPAPRCRAVRSLSHREVLPLATFVRRLDPQGRRLV 96
QY 2 ASGQRCVLLRTWEALAPATPAMPAPRCRAVRSLSHREVLPLATFVRRLDPQGRRLV 61
DB 97 QRGDPAAFRALVAQCLVCVPMWDAARPPAPSPFROVSCLELVARVLQRLCEGAKNVIAF 156

|||||
QY 62 ORGDPAAFALVAOCIVCPMDARPPAPSPROYSCLELVARVLORLCEGAKNVLA 121
Db 157 GFALLDGAARGPPEAFTTSVRSYLPNTVTDALRGSGAMGLLRVGDVVLVHLARCALE 216
QY 122 GFALLDGAARGPPEAFTTSVRSYLPNTVTDALRGSGAMGLLRVGDVVLVHLARCALE 181
Db 217 VLVASCAAYOVCGPPLVQUGAATQARPPHAGSPRRRLCCERAMNHVDEAGVPLGLPAP 276
QY 182 VLVASCAAYOVCGPPLVQUGAATQARPPHAGSPRRRLCCERAMNHVDEAGVPLGLPAP 241
Db 277 GARRRGGSASRSLPLPKRRRGAAPEPERTPVGOGSMAHPGRTGPGSDGFCVSPARPA 336
QY 242 GARRRGGSASRSLPLPKRRRGAAPEPERTPVGOGSMAHPGRTGPGSDGFCVSPARPA 301
Db 337 BEATLEGALSGTRSHSPSVGROHNAHPSTSRPPRMDTPCPVYVAETKHFLYSSGDK 396
QY 302 BEATLEGALSGTRSHSPSVGROHNAHPSTSRPPRMDTPCPVYVAETKHFLYSSGDK 361
Db 397 QLRPSFLSSLRPSLTGARLVETIFLGSRPWMPGTPRRLPRLPQRYWQMRPLFLELGN 456
QY 362 QLRPSFLSSLRPSLTGARLVETIFLGSRPWMPGTPRRLPRLPQRYWQMRPLFLELGN 421
Db 457 HAQCPYGVLLKTHCPBRAAVTPAGVCAREKPOGSVAAPDEEDTDPRRLVOLLROHSSPM 516
QY 422 HAQCPYGVLLKTHCPBRAAVTPAGVCAREKPOGSVAAPDEEDTDPRRLVOLLROHSSPM 481
Db 517 OYGVFVRACLRRLVPRGLSGRHNERRFLRNTKFLSLGKNAKLSLOELTWKMSVDCAM 576
QY 482 OYGVFVRACLRRLVPRGLSGRHNERRFLRNTKFLSLGKNAKLSLOELTWKMSVDCAM 541
Db 577 LRRSGVCGVPAEHRLEBEILAKFLHMLASYVVELLSFFYVETTTQKNLFFYRKS 636
QY 542 LRRSGVCGVPAEHRLEBEILAKFLHMLASYVVELLSFFYVETTTQKNLFFYRKS 601
Db 637 VMSKLOSIGIRHCLKRVOLRELSAEVROHREARPLLRLSRLFTPKPGLRPVMDV 696
QY 602 VMSKLOSIGIRHCLKRVOLRELSAEVROHREARPLLRLSRLFTPKPGLRPVMDV 661
Db 697 VGARTFRREKRAERLTSRYKALFVLYNERARRPGLLGA SVLGLDINHAWTEFVLRVA 756
QY 662 VGARTFRREKRAERLTSRYKALFVLYNERARRPGLLGA SVLGLDINHAWTEFVLRVA 721
Db 757 ODPEPELVKVDYVGAIVTIPQDRLTEVIASIKPQNTCYCRVAVVOKAAHGHVRA 816
QY 722 ODPEPELVKVDYVGAIVTIPQDRLTEVIASIKPQNTCYCRVAVVOKAAHGHVRA 781
Db 817 KSHVSTLIDLOPYMROFVAHLOETSPLRDAVYIEOSSLINEASSGLFVETLRFMCHAVR 876
QY 782 KSHVSTLIDLOPYMROFVAHLOETSPLRDAVYIEOSSLINEASSGLFVETLRFMCHAVR 841
Db 877 INGSYVOCGIPGSIILSTLCSLCYGDMEKMLFAGIRRDGILLRLVDFLVTPLH 936
QY 842 INGSYVOCGIPGSIILSTLCSLCYGDMEKMLFAGIRRDGILLRLVDFLVTPLH 901
Db 937 ACTFLRTLVRGYPEVGCVVNLKTYVNFVEDBALCGTAFVQMPAHGL 984
QY 902 ACTFLRTLVRGYPEVGCVVNLKTYVNFVEDBALCGTAFVQMPAHGL 949

RESULT 5
ID US-08-911-312A-34 STANDARD: PRT: 1189 AA.

AC xxxxxx

Sequence 34, Application US/08911312A

Sequence 34, Application US/08911312A

GENERAL INFORMATION:

APPLICANT: Cecch, Thomas R.

APPLICANT: Lingner, Joachim

CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-00250005
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 34:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: Protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
Query Match 99.8%; Score 7096; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

122 GFALLDGRGPPPAFTTSVRSYLPNTVTDALRSGANGLLRRYGDVVLHLLARCALF 181
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Qy 182 VLVAPSCAYQVCGPPLVQLGAATQARPPHASGPRRLGECERAMNHSVREAGVPLGLPAP 241
Db 277 GARRGGASASLPLPKPRRGGAAPERTPYGOSMAHPGTRGSPDRGFCVSPAPAP 336
Qy 242 GARRGGASASLPLPKPRRGGAAPERTPYGOSMAHPGTRGSPDRGFCVSPAPAP 301
Db 337 BEATSLLEGALSGTRSHSHSVGRQHAGCPSTSRPRPMDTCCPPYATETKHFLYSSGDKE 396
Qy 302 BEATSLLEGALSGTRSHSHSVGRQHAGCPSTSRPRPMDTCCPPYATETKHFLYSSGDKE 361
Db 397 QLRPSFLLSLRPSLTGARRLVETIFLGRPMMPGTPRRLPORYWQMRPLETELLGN 456
Qy 362 QLRPSFLLSLRPSLTGARRLVETIFLGRPMMPGTPRRLPORYWQMRPLETELLGN 421
Db 457 HAOCYGVLTHTHCPLRRAAVTPAAGVCAREKPOGSVAAPBEDDTPRRLVQLLRHSSPW 516
Qy 422 HAOCYGVLTHTHCPLRRAAVTPAAGVCAREKPOGSVAAPBEDDTPRRLVQLLRHSSPW 481
Db 517 QYGFVRACLRRLVPPGLMGRSHNERFLRNTKPEISLGKHAKSISOELTWKMSYRDCAM 576
Qy 482 QYGFVRACLRRLVPPGLMGRSHNERFLRNTKPEISLGKHAKSISOELTWKMSYRDCAM 541
Db 577 LRSPBGVCVAHAERHLEBEILLAKLHMLSYVVELLSFFYVETTFORNRLEFFYRKS 636
Qy 542 LRSPBGVCVAHAERHLEBEILLAKLHMLSYVVELLSFFYVETTFORNRLEFFYRKS 601
Db 637 VMSKLOSIGIRHOLKRVOLRELSAEVGRHREARPALTSRLRFIPKPDGRPIYNNMYV 696
Qy 602 VMSKLOSIGIRHOLKRVOLRELSAEVGRHREARPALTSRLRFIPKPDGRPIYNNMYV 661
Db 697 VGARTFRERKRAERLTSVKALFSVLNTERARARPGLLGASVGLDDIRANMTEFVLRYRA 756
Qy 662 VGARTFRERKRAERLTSVKALFSVLNTERARARPGLLGASVGLDDIRANMTEFVLRYRA 721
Db 757 QDPPELFLFVAVDVTGAIDTIPODRLTEVIASIIKPPQTYCVRRRAVYQKAAHGVRAAF 816
Qy 722 QDPPELFLFVAVDVTGAIDTIPODRLTEVIASIIKPPQTYCVRRRAVYQKAAHGVRAAF 781
Db 817 KSHSTLTDLPYMRQFAHIOETSPRLDAVYIEBOSSSLNEASSGLFVPLRFPMCHNAVR 876
Qy 782 KSHSTLTDLPYMRQFAHIOETSPRLDAVYIEBOSSSLNEASSGLFVPLRFPMCHNAVR 841
Db 877 IRGKSYVOCGIPGOSILSTLCSLCYGDMMENKLFAGIRRDGLLRLVDDFLVPLH 936
Qy 842 IRGKSYVOCGIPGOSILSTLCSLCYGDMMENKLFAGIRRDGLLRLVDDFLVPLH 901
Db 937 AKTFLRLTVRGVPEYGCYVNNRKYVYVNPVDEALGTAFTVQMPAHGL 984
Qy 902 AKTFLRLTVRGVPEYGCYVNNRKYVYVNPVDEALGTAFTVQMPAHGL 949

RESULT 6
ID US-08-911-312-34 STANDARD: PRT: 1189 AA.

AC xxxxxx
XX
XX
DE Sequence 34, Application US/08911312
XX
CC Sequence 34, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.

CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC City: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 34:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;

Query Match 99.8%; Score 7096; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 37 ASTORCVLRTWEALAPATPAMPRAPCRAVRSLLRSHYREVLPATFVRRLGQGNRLV 96
Qy 2 ASGORCVLRTWEALAPATPAMPRAPCRAVRSLLRSHYREVLPATFVRRLGQGNRLV 61
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DE Sequence 612, Application US/08974549
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CC Sequence 612, Application US/08974549
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit
CC NUMBER OF SEQUENCES: 726
CC CORRESPONDENCE ADDRESS:

CC ADDRESS: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
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CC CLASSIFICATION: 536
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CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
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CC PRIOR APPLICATION DATA:
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CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
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CC FILING DATE: 01-OCT-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002610US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 612:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
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CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1200
CC OTHER INFORMATION: /note="fusion protein composed of H1e6
CC and Anti-Xpress tags, enterokinase
CC OTHER INFORMATION: cleavage site and full length hTERT
CC OTHER INFORMATION: protein"
SQ SEQUENCE 1200 AA; 134522 MW; 7387257 CN;
Query Match 99.8%; Score 7096; DB 14; Length 1200;
Best local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 48 ASTORCVLLRTWEALAPATPAMPRAPRACRAVNSLSRSHYREVLPATFYRRIGPGQGRLLV 107

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QY 422 HAOCPPYGLTKHCPRLRAAYTPAAGVCAREKPOGSVAPEBEDTDPRLVOLLRHOSSPW 481
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QY 482 QYVGFVACLRRLVPGIWSRHNERRFLRNTKFFISLGAKTSLQELTKMSVRCAM 541
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QY 542 LRSPGVCVPAARHRLREELIAFLHMLSVYVELLRSFYVTEETFOKNRLFYRKS 601
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QY 602 VMSLQSLGIRHOLKRVQLRELSEAVRQHREARPALITSRLRFPKPDGLRPVNMXY 661
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QY 662 VGARTFRERKRAERLTSVKALFSVLNTERARBPGLGASVGLDIDHRAWRTFVLRYRA 721
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QY 902 AKTFLRLTLVRCVPEYGCYVNLKRTVNFVVEDEALGTAFTVQMPAHGL 949

CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC City: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-5834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Elmhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 33:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA; 134322 MW; 7387257 CN;
SQ
Query Match 99.8%; Score 7096; DB 14; Length 1200;
Best Local Similarly 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 48 ASTORCVLRTWELALPATPMRAPRCRAVRSLLRSHYREVLPALATFVRRLGQGRV 107
QY 2 ASGORCVLRTWELALPATPMRAPRCRAVRSLLRSHYREVLPALATFVRRLGQGRV 61
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AC xxxxxx

Sequence 324, Application US/08912951

Sequence 324, Application US/08912951

GENERAL INFORMATION:

APPLICANT: Cecch, Thomas R.

APPLICANT: Lindner, Joachim

APPLICANT: Nakamura, Toru

APPLICANT: Chapman, Karen B.

APPLICANT: Morin, Gregg B.

APPLICANT: Harley, Calvin

CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
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CC APPLICATION NUMBER: US 08/851,843
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CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 324:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA; 134322 MW; 7387257 CN;

Query Match 99.8%; Score 7096; DB 14; Length 1200;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 48 ASTORCVLLRTWENALAPATPAMPAPRCRAVRSLLRSYREVLPATVVRRLGPGMRV 107
QY 2 ASGQRVLLRTWENALAPATPAMPAPRCRAVRSLLRSYREVLPATVVRRLGPGMRV 61
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QY 842 IRGKSYVOCQIGIPOGSIITLLCSLCYGDMEKRLFAGIRDDGLRLVDDFLLVPLHLTH 901
Db 1033 AKTFILRTLVRGVPEXGVVNLAKTYVNEPVEDEALGTAFAVQMPAHGL 1080
QY 902 AKTFILRTLVRGVPEXGVVNLAKTYVNEPVEDEALGTAFAVQMPAHGL 949

RESULT 12
ID US-08-911-312-32 STANDARD: PRT: 1285 AA.

AC xxxxxx

DE Sequence 32, Application US/08911312
CC Sequence 32, Application US/08911312

CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent In Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 32:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1285 AA, 143529 MW, 8449280 CN:
Query Match 99.8%, Score 7096, DB 14, Length 1285;
Best Local Similarity 99.9%, Pred. No. 0.00e+00;
Matches 947, Conservative 0, Mismatches 1, Indels 0, Gaps 0;

Db 133 ASTORCVLLRTWEALAPATPAMPAPRCRAVRSLSLSHYREVLPATFVRLGPOGRRLV 192
QY 2 ASGRCVLLRTWEALAPATPAMPAPRCRAVRSLSLSHYREVLPATFVRLGPOGRRLV 61
Db 193 QRCDBPAFRAVAOCLVCPMDARPAPAPSFROYSCLEKELVARVLORLCERGANVLA 252

QY 62 QRGDPAFRAVAOCVCPWDARPPAAPSFRQVSCLEKELVAVLQRLCERGAKNVLA 121
 Db 253 GFALLDARGGPPPAFTTSVNSSTYPNTYTDALRSGGANGLLRRYGDVYVHLARCALF 312
 QY 122 GFALLDARGGPPPAFTTSVNSSTYPNTYTDALRSGGANGLLRRYGDVYVHLARCALF 181
 Db 313 VLVAPSCAYOCGPPPLVOLGAATQARPPHAGPPRRRLGCEPAMHNSVREGVPLGLPAP 372
 QY 182 VLVAPSCAYOCGPPPLVOLGAATQARPPHAGPPRRRLGCEPAMHNSVREGVPLGLPAP 241
 Db 373 GARRRGGSASRLPLPKRRRGAAPPEPERTVGGGSMAMPERTGRGSDRGCVVSPARPA 432
 QY 242 GARRRGGSASRLPLPKRRRGAAPPEPERTVGGGSMAMPERTGRGSDRGCVVSPARPA 301
 Db 433 EEAATSLBGALSGTRHSHPSVGRQHHAGPPSTSRPPRMDTCCPPVYATKHELYSSGDK 492
 QY 302 EEAATSLBGALSGTRHSHPSVGRQHHAGPPSTSRPPRMDTCCPPVYATKHELYSSGDK 361
 Db 493 QLRSPFLSLSRPLSLTGRRRLVETIFLGRPMMPGTPRRLRLPORVQWOMRPLFELLGN 552
 QY 362 QLRSPFLSLSRPLSLTGRRRLVETIFLGRPMMPGTPRRLRLPORVQWOMRPLFELLGN 421
 Db 553 HAQCPYGLLKTGHCPLRAAVTPAAGVCAREKPGSVAAPEEDTDPRRLVOLLRQHSPPW 612
 QY 422 HAQCPYGLLKTGHCPLRAAVTPAAGVCAREKPGSVAAPEEDTDPRRLVOLLRQHSPPW 481
 Db 613 QYGFVFRACLRRLVPPGLMGRHNRRLRNTKKEFISGKAKLSLOELTKMSVRODCAW 672
 QY 482 QYGFVFRACLRRLVPPGLMGRHNRRLRNTKKEFISGKAKLSLOELTKMSVRODCAW 541
 Db 673 LRRSPGVCVAAEHRRLBEELAKFLHMLSVYVELLRSEFYETEFQKNRLEFYKKS 732
 QY 542 LRRSPGVCVAAEHRRLBEELAKFLHMLSVYVELLRSEFYETEFQKNRLEFYKKS 601
 Db 733 VMSKLSQSIGIRQHLKRVOLRELSEAEVQRHREARPAALTSRLRFPKPDGLRPIVNDYV 792
 QY 602 VMSKLSQSIGIRQHLKRVOLRELSEAEVQRHREARPAALTSRLRFPKPDGLRPIVNDYV 661
 Db 793 VGATFREREKAERLTSVKALESVLANTERARRRPGGLGASVGLDDIHRAMRTFYLRYRA 852
 QY 662 VGATFREREKAERLTSVKALESVLANTERARRRPGGLGASVGLDDIHRAMRTFYLRYRA 721
 Db 853 ODPPPELVFVADVTGADTIPODRLETVIASIIRKONTYCVRRAYVOKAHGVRFAF 912
 QY 722 ODPPPELVFVADVTGADTIPODRLETVIASIIRKONTYCVRRAYVOKAHGVRFAF 781
 Db 913 KSHVSTLTDLPYKQFVAHLQETSPLRDAVYIEGSSSLNEASSGLFDFVFLRFKCHNAVR 972
 QY 782 KSHVSTLTDLPYKQFVAHLQETSPLRDAVYIEGSSSLNEASSGLFDFVFLRFKCHNAVR 841
 Db 973 IRGKSYVOCGCIPOGSIILSLCSCIYCDMKNKLFAGIRRDGLLRVLDLVTPLH 1032
 QY 842 IRGKSYVOCGCIPOGSIILSLCSCIYCDMKNKLFAGIRRDGLLRVLDLVTPLH 901
 Db 1033 AKTELRTLVRCVPEXGVNLRKTYVNFVEDEALGTAFAVOMPAHGL 1080
 QY 902 AKTELRTLVRCVPEXGVNLRKTYVNFVEDEALGTAFAVOMPAHGL 949

CC APPLICANT: Chapman, Karen B.
 CC APPLICANT: Morin, Gregg B.
 CC APPLICANT: Harley, Calvin
 CC APPLICANT: Andrews, William H.
 CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
 CC NUMBER OF SEQUENCES: 335
 CC CORRESPONDENCE ADDRESS:
 CC ADDRESSEE: Townsend and Townsend and Crew LLP
 CC STREET: Two Embarcadero Center, 8th Floor
 CC CITY: San Francisco
 CC STATE: California
 CC COUNTRY: United States of America
 CC ZIP: 94111
 CC COMPUTER READABLE FORM:
 CC MEDIUM TYPE: Floppy disk
 CC COMPUTER: IBM PC compatible
 CC OPERATING SYSTEM: PC-DOS/MS-DOS
 CC SOFTWARE: Patent Release #1.0, Version #1.30
 CC CURRENT APPLICATION DATA:
 CC APPLICATION NUMBER: US/08/912,951
 CC FILING DATE: 14-AUG-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/854,050
 CC FILING DATE: 09-MAY-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/851,843
 CC FILING DATE: 06-MAY-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/846,017
 CC FILING DATE: 25-APR-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/844,419
 CC FILING DATE: 18-APR-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/724,643
 CC FILING DATE: 01-OCT-1996
 CC CLASSIFICATION: 435
 CC ATTORNEY/AGENT INFORMATION:
 CC NAME: Apple, Randolph T.
 CC REGISTRATION NUMBER: 36,429
 CC REFERENCE/DOCKET NUMBER: 015389-002600US
 CC TELECOMMUNICATION INFORMATION:
 CC TELEPHONE: (415) 576-0200
 CC TELEFAX: (415) 576-0300
 CC INFORMATION FOR SEQ ID NO: 314:
 CC SEQUENCE CHARACTERISTICS:
 CC LENGTH: 1285 amino acids
 CC TYPE: amino acid
 CC STRANDEDNESS:
 CC TOPOLOGY: linear
 CC MOLECULE TYPE: protein
 CC CC SEQUENCE 1285 AA; 143529 MW; 8449280 CN;
 SQ
 Query Match 99.8%; Score 7096; DB 14; Length 1285;
 Best Local Similarity 99.9%; Pred. No. 0.00e+00;
 Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 133 ASTORCVLRTWEALAPATPMPAPRAVRSLLRSHYREVLPATFVRRLGFGQWRVLY 192
 QY 2 ASGQRCVLTFTWEALAPATPMPAPRAVRSLLRSHYREVLPATFVRRLGFGQWRVLY 61
 Db 193 QRGDPAFRAVAOCVCPWDARPPAAPSFRQVSCLEKELVAVLQRLCERGAKNVLA 252
 QY 62 QRGDPAFRAVAOCVCPWDARPPAAPSFRQVSCLEKELVAVLQRLCERGAKNVLA 121
 Db 253 GFALLDARGGPPPAFTTSVNSSTYPNTYTDALRSGGANGLLRRYGDVYVHLARCALF 312

QY	122	GFALLDARGGPEAFETTSVRSYLPNTVTDALGSGAMGILLRWDGVDVVLHILHARCALE	181
Db	313	VLVAPSAOYOVCGEPLTVOLGAATOAPRPPHASPARRRRLICERAMNHSVREAGVPLGLDAP	372
QY	182	VLVAPSAOYOVCGEPLTVOLGAATOAPRPPHASPARRRRLICERAMNHSVREAGVPLGLDAP	241
Db	373	GARRRGASAKSLPLPKPRPRGAAPEREPYVQGSMAHAGRTRGSDRGFCVSPAPPA	432
QY	242	GARRRGASAKSLPLPKPRPRGAAPEREPYVQGSMAHAGRTRGSDRGFCVSPAPPA	301
Db	433	EAATSLGALSGTSHSPSVGRQHHAGPSTSNPPRPMDTPCPPVYAETKHLIYSSGKE	492
QY	302	EAATSLGALSGTSHSPSVGRQHHAGPSTSNPPRPMDTPCPPVYAETKHLIYSSGKE	361
Db	493	QLRPSFLSSLRPELTGARLVETIFLGSPPMAGTPRRRLPRPOYVOMRPLFLELGN	552
QY	362	QLRPSFLSSLRPELTGARLVETIFLGSPPMAGTPRRRLPRPOYVOMRPLFLELGN	421
Db	553	HAOCPYVLLKTHCPRLPAAVTPAAGVCAREKPGSVAAPEEEDTDRRLVOLLRQHSSPW	612
QY	422	HAOCPYVLLKTHCPRLPAAVTPAAGVCAREKPGSVAAPEEEDTDRRLVOLLRQHSSPW	481
Db	613	OYVEFVACLRRLVPPCLMKSRRNERFLNTEKKFSLGKHAKLSLOELTWKMSVDCAM	672
QY	482	OYVEFVACLRRLVPPCLMKSRRNERFLNTEKKFSLGKHAKLSLOELTWKMSVDCAM	541
Db	673	LRRSPGVGCVPAAEHRLREELIAKFLHMLMSVYVVELLSFFVYETTPQKNRLFEEYKS	732
QY	542	LRRSPGVGCVPAAEHRLREELIAKFLHMLMSVYVVELLSFFVYETTPQKNRLFEEYKS	601
Db	733	VMSKLSIGITRQHLKRVQLRELSEAEVROHREARPALITSRLFIKPPGILRP IYVNDYV	792
QY	602	VMSKLSIGITRQHLKRVQLRELSEAEVROHREARPALITSRLFIKPPGILRP IYVNDYV	661
Db	793	VGARTFRRERAEELTSRVKALFSVLYNEBARAPGLGASVGLDIDHRAWTFVLRYRA	852
QY	662	VGARTFRRERAEELTSRVKALFSVLYNEBARAPGLGASVGLDIDHRAWTFVLRYRA	721
Db	853	ODPPPELYFKKVDVTGAVDTIPDDRLETVIASIIRKQNTYCVRRYAVVOKAAHGVKRAAF	912
QY	722	ODPPPELYFKKVDVTGAVDTIPDDRLETVIASIIRKQNTYCVRRYAVVOKAAHGVKRAAF	781
Db	913	KSHVSTLTDLOPYKROVVAHLOETSPRLDAAVVEQSSSINEAASSGLFVDELFKMGHNAVR	972
QY	782	KSHVSTLTDLOPYKROVVAHLOETSPRLDAAVVEQSSSINEAASSGLFVDELFKMGHNAVR	841
Db	973	IRGKSVYQCGIPQGSILSTLCLCYGDMENKLFAGIRRDGILLRLVDDFLVTPHLTH	1033
QY	842	IRGKSVYQCGIPQGSILSTLCLCYGDMENKLFAGIRRDGILLRLVDDFLVTPHLTH	901
Db	1033	AKTFLRLVKGVPYEGCVNLAKRTVYNFPEEDALGCTAFVQMPAHGL 1080	
QY	902	AKTFLRLVKGVPYEGCVNLAKRTVYNFPEEDALGCTAFVQMPAHGL 949	
RESULT 14			
ID	US-08-911-312A-32	STANDARD;	PRT; 1285 AA.
AC	xxxxxx		
XX			
DT			
XX			
DE	Sequence 32, Application US/08911312A		
XX			
CC	Sequence 32, Application US/08911312A		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William		
CC			

Cc		TITLE OF INVENTION:	Telomerase Reverse Transcriptase
Cc		NUMBER OF SEQUENCES:	171
Cc		CORRESPONDENCE ADDRESS:	
Cc		ADDRESSEE:	Townsend and Townsend and Crew LLP
Cc		STREET:	Two Embarcadero Center, Eighth Floor
Cc		CITY:	San Francisco
Cc		STATE:	California
Cc		COUNTRY:	USA
Cc		ZIP:	94111-3834
Cc		COMPUTER READABLE FORM:	
Cc		MEDIUM TYPE:	Floppy disk
Cc		COMPUTER:	IBM PC compatible
Cc		OPERATING SYSTEM:	PC-DOS/MS-DOS
Cc		SOFTWARE:	PatentIn Release #1.0, Version #1.30
Cc		CURRENT APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US/08/911,312A
Cc		FILING DATE:	14-AUG-1997
Cc		CLASSIFICATION:	536
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/724,643
Cc		FILING DATE:	01-OCT-1996
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/844,419
Cc		FILING DATE:	18-APR-1997
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/846,017
Cc		FILING DATE:	25-APR-1997
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/851,843
Cc		FILING DATE:	06-MAY-1997
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/854,050
Cc		FILING DATE:	09-MAY-1997
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/912,951
Cc		FILING DATE:	14-AUG-1997
Cc		PRIOR APPLICATION DATA:	
Cc		APPLICATION NUMBER:	US 08/915,503
Cc		FILING DATE:	14-AUG-1997
Cc		ATTORNEY/AGENT INFORMATION:	
Cc		NAME:	Einhorn, Gregory P.
Cc		REGISTRATION NUMBER:	38,440
Cc		REFERENCE/DOCKET NUMBER:	013389-002500DS
Cc		TELECOMMUNICATION INFORMATION:	
Cc		TELEPHONE:	(415) 576-0200
Cc		TELEFAX:	(415) 576-0300
Cc		INFORMATION FOR SEQ ID NO:	32:
Cc		SEQUENCE CHARACTERISTICS:	
Cc		LENGTH:	1285 amino acids
Cc		TYPE:	amino acid
Cc		STRANDEDNESS:	
Cc		TOPOLOGY:	linear
Cc		MOLECULE TYPE:	protein
SQ	SEQUENCE	1285 AA; 143529 MW; 8449280 CN;	
Dd	Query Match	99.8%; Score 7096; DB 14; Length 1285; Best Local Similarity 99.9%; Pred. No. 0.0e+00; Matches 94%; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	
Dd	133	ASTRCVLLRTWELALATPMPRAPCRRAVRSLSIRSHYREVLPPLAFVRRLGPGGRVLV 2 ASGORCVLRLTWELADPATPMRPARPACRAVRSLSLRSHYREVPPLAFVVRRLGGGRGLV 193 QRGDPAFAFLVAOCLVCVMDARPPAAPASFRVOVSCLKELVARVIOLRCERGAKNYIAF 62 QRGDPAFAFLVAOCLVCVMDARPPAAPASFRVOVSCLKELVARVIOLRCERGAKNYIAF 253 GFALLDGARGGPAAFTTSVSYLPNTVTALRSFGAMGILLRVSGDVIVHLIARCALF 122 GFALLDGRGGSPAAFTTSSVSLPNVTVDLKRSGMAGLLRRVGSDVIVHILARCALF 313 VLAVPSCAVVQCPEPLLQLGAATAARRPPPASPGRPRLGGERANNHSVRAGVYLIGAPP 	192 61 252 121 312 181 372

QY 182 VLVAASCAVYCGPPLVQLGAATQARPPPHASGPRRLCGERAMNHSVREAGVPLGLPAP 241
Db 373 GARRRGASASLPLPKPRRGAAPPEPRTVGGGSAHPCGTRGSPDRGCVSPAPPA 432
QY 242 GARRRGASASLPLPKPRRGAAPPEPRTVGGGSAHPCGTRGSPDRGCVSPAPPA 301
Db 433 EEAATSEBALSGTRSHSHSVGRHSHAGPSTSRPPRMDTCCPRYATKTFIYSSGDK 492
QY 302 EEAATSEBALSGTRSHSHSVGRHSHAGPSTSRPPRMDTCCPRYATKTFIYSSGDK 361
Db 493 QLRPSFLSLSRPLTGARLVEITFIIGSRPMPGTPRRLPLPORYQMPLFELLGN 552
QY 362 QLRPSFLSLSRPLTGARLVEITFIIGSRPMPGTPRRLPLPORYQMPLFELLGN 421
Db 553 HAOCPIYGLTTHCPDLRAAVTPAGVCAKREKPGGSAAPPEEDIDPRRLVOLLROHSSPW 612
QY 422 HAOCPIYGLTTHCPDLRAAVTPAGVCAKREKPGGSAAPPEEDIDPRRLVOLLROHSSPW 481
Db 613 QYGVFRACLRVLPVPGMGRHNRRLRMTKFTISLGNKAKLSLOELTWMKSVRDCAM 672
QY 482 QYGVFRACLRVLPVPGMGRHNRRLRMTKFTISLGNKAKLSLOELTWMKSVRDCAM 541
Db 673 LRRSPGVCAVPAEHRRLREELIAKFLHMLMSYVVELRSEFYVETTFOKNRLEFYRKS 732
QY 542 LRRSPGVCAVPAEHRRLREELIAKFLHMLMSYVVELRSEFYVETTFOKNRLEFYRKS 601
Db 733 VWSKIQSIGIQHOKRVOLRELSEAEVQRHREARPAITLSRLRFTPKDGLRPVNM DY 792
QY 602 VWSKIQSIGIQHOKRVOLRELSEAEVQRHREARPAITLSRLRFTPKDGLRPVNM DY 661
Db 793 VGARTFRERKRAERLTSVKALFSVLANTERARRRPGLGASVIGLDDIHRAMTFVLRLRA 852
QY 662 VGARTFRERKRAERLTSVKALFSVLANTERARRRPGLGASVIGLDDIHRAMTFVLRLRA 721
Db 853 QDPPELFEVVDYVGA YDTIPODRLTEVIASTIRPQNTYCVRRAYVQKAAHGVRAAF 912
QY 722 QDPPELFEVVDYVGA YDTIPODRLTEVIASTIRPQNTYCVRRAYVQKAAHGVRAAF 781
Db 913 KSHVSTLDLDPYRMOFAHLOETSPLDVAVYIEOSSSLNEASGLFVFLRPMCHNAVR 972
QY 782 KSHVSTLDLDPYRMOFAHLOETSPLDVAVYIEOSSSLNEASGLFVFLRPMCHNAVR 841
Db 973 IRGKSYVOCOGIPGSIITLCSLCYGDMEKFLRAGIRPDGLLRVDDFLVPHLTH 1032
QY 842 IRGKSYVOCOGIPGSIITLCSLCYGDMEKFLRAGIRPDGLLRVDDFLVPHLTH 901
Db 1032 AKTELRLTVRGVPEXGVNLRKTYVNFVEDEALGTAFYQMPAHGL 1080
QY 902 AKTELRLTVRGVPEXGVNLRKTYVNFVEDEALGTAFYQMPAHGL 949

RESULT 15
ID US-08-911-312-55 STANDARD: PRT: 1407 AA.
AC xxxxxx
DT
XX
XX
XX
XX
Sequence 55, Application US/08911312
CC Sequence 55, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hatley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP

CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 55:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1407 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1407 AA: 157668 MW: 10134798 CN:
SQ
Query Match 99.6%; Score 7086; DB 14; Length 1407;
Best Local Similarity 99.8%; Pred. No. 0.00e+00;
Matches 946; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 255 ASTQRCVLLRTWEALAPATPAMPAPRCRAVRSILRSHYREVLPLATFVRRLGPGWRLV 314
QY 2 ASQRCVLLRTWEALAPATPAMPAPRCRAVRSILRSHYREVLPLATFVRRLGPGWRLV 61
Db 315 ORGDPAAFRALVACLVCPWDARPPAPSFROVSCLEKELVAVRLQLCERGAKNVLA 374
QY 62 ORGDPAAFRALVACLVCPWDARPPAPSFROVSCLEKELVAVRLQLCERGAKNVLA 121
Db 375 GFALLDARGGPPAEFTTSVRSYLPNTWTDALRSGAGMLLRVGGDVVHLRLARCALF 434
QY 122 GFALLDARGGPPAEFTTSVRSYLPNTWTDALRSGAGMLLRVGGDVVHLRLARCALF 181
Db 435 VLVAASCAVYCGPPLVQLGAATQARPPPHASGPRRLCGERAMNHSVREAGVPLGLPAP 494
QY 182 VLVAASCAVYCGPPLVQLGAATQARPPPHASGPRRLCGERAMNHSVREAGVPLGLPAP 241
Db 495 GARRRGASASLPLPKPRRGAAPPEPRTVGGGSAHPCGTRGSPDRGCVSPAPPA 554

QY 242 GARRRGSA\$RSLPLRKRRRGAAPEPERTPVGOG\$WAHPGRTG\$PSDRGFCVVS\$PARPA 301

Db 555 E\$AT\$LE\$GAL\$GTRH\$H\$P\$V\$G\$R\$H\$H\$A\$P\$P\$T\$S\$P\$P\$P\$M\$D\$T\$P\$C\$P\$P\$Y\$A\$E\$T\$K\$H\$F\$LY\$S\$G\$D\$K\$E 614

QY 302 E\$AT\$S\$LE\$GAL\$G\$T\$R\$H\$H\$P\$S\$V\$G\$R\$H\$H\$A\$G\$P\$P\$T\$S\$P\$P\$P\$M\$D\$T\$P\$C\$P\$P\$Y\$A\$E\$T\$K\$H\$F\$LY\$S\$G\$D\$K\$E 361

Db 615 QLRPS\$LL\$S\$R\$P\$S\$R\$G\$AR\$R\$V\$E\$T\$F\$G\$S\$R\$P\$M\$G\$T\$P\$R\$R\$P\$R\$P\$Q\$R\$Y\$W\$O\$M\$R\$P\$P\$F\$L\$E\$LL\$G\$N 674

QY 362 QLRPS\$LL\$S\$R\$P\$S\$R\$G\$AR\$R\$V\$E\$T\$F\$G\$S\$R\$P\$M\$G\$T\$P\$R\$R\$P\$R\$P\$Q\$R\$Y\$W\$O\$M\$R\$P\$P\$F\$L\$E\$LL\$G\$N 421

Db 675 HAOC\$P\$Y\$V\$LL\$K\$T\$C\$P\$L\$R\$A\$A\$V\$T\$P\$A\$G\$V\$C\$A\$R\$E\$K\$P\$O\$G\$S\$V\$A\$P\$E\$E\$D\$T\$D\$P\$R\$R\$V\$O\$L\$R\$O\$H\$S\$P\$M 734

QY 422 HAOC\$P\$Y\$V\$LL\$K\$T\$C\$P\$L\$R\$A\$A\$V\$T\$P\$A\$G\$V\$C\$A\$R\$E\$K\$P\$O\$G\$S\$V\$A\$P\$E\$E\$D\$T\$D\$P\$R\$R\$V\$O\$L\$R\$O\$H\$S\$P\$M 481

Db 735 QYV\$G\$F\$V\$R\$A\$C\$R\$R\$V\$P\$P\$G\$L\$M\$G\$S\$R\$H\$N\$E\$R\$F\$L\$N\$T\$K\$F\$I\$S\$G\$H\$A\$K\$L\$S\$O\$E\$L\$T\$W\$K\$M\$S\$V\$R\$D\$C\$A\$M 794

QY 482 QYV\$G\$F\$V\$R\$A\$C\$R\$R\$V\$P\$P\$G\$L\$M\$G\$S\$R\$H\$N\$E\$R\$F\$L\$N\$T\$K\$F\$I\$S\$G\$H\$A\$K\$L\$S\$O\$E\$L\$T\$W\$K\$M\$S\$V\$R\$D\$C\$A\$M 541

Db 795 L\$R\$S\$P\$G\$V\$C\$P\$A\$E\$H\$R\$R\$E\$E\$T\$K\$F\$L\$H\$W\$L\$M\$S\$V\$Y\$V\$E\$LL\$R\$S\$F\$Y\$V\$T\$E\$T\$T\$P\$O\$K\$N\$R\$L\$F\$Y\$R\$P\$S 854

QY 542 L\$R\$S\$P\$G\$V\$C\$P\$A\$E\$H\$R\$R\$E\$E\$T\$K\$F\$L\$H\$W\$L\$M\$S\$V\$Y\$V\$E\$LL\$R\$S\$F\$Y\$V\$T\$E\$T\$T\$P\$O\$K\$N\$R\$L\$F\$Y\$R\$P\$S 601

Db 855 V\$M\$K\$L\$O\$S\$IG\$R\$O\$H\$L\$K\$R\$V\$O\$L\$R\$E\$L\$S\$E\$A\$E\$V\$R\$O\$H\$R\$E\$A\$R\$P\$A\$LL\$T\$S\$R\$L\$R\$F\$I\$P\$K\$D\$G\$R\$P\$V\$N\$M\$D\$Y 914

QY 602 V\$M\$K\$L\$O\$S\$IG\$R\$O\$H\$L\$K\$R\$V\$O\$L\$R\$E\$L\$S\$E\$A\$E\$V\$R\$O\$H\$R\$E\$A\$R\$P\$A\$LL\$T\$S\$R\$L\$R\$F\$I\$P\$K\$D\$G\$R\$P\$V\$N\$M\$D\$Y 661

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QY 662 V\$G\$A\$R\$T\$R\$R\$E\$K\$R\$A\$R\$L\$T\$S\$R\$V\$A\$L\$F\$S\$V\$L\$N\$Y\$E\$R\$A\$R\$R\$P\$G\$L\$G\$A\$S\$V\$L\$G\$D\$D\$I\$H\$R\$A\$M\$R\$T\$F\$V\$L\$R\$V\$R\$A 721

Db 975 Q\$D\$P\$P\$E\$Y\$F\$K\$V\$N\$V\$T\$G\$A\$Y\$D\$T\$I\$P\$O\$D\$R\$L\$E\$V\$I\$A\$S\$I\$K\$P\$O\$N\$T\$Y\$C\$V\$R\$R\$A\$Y\$V\$O\$K\$A\$H\$G\$H\$V\$K\$A\$F 1034

QY 722 Q\$D\$P\$P\$E\$Y\$F\$K\$V\$N\$V\$T\$G\$A\$Y\$D\$T\$I\$P\$O\$D\$R\$L\$E\$V\$I\$A\$S\$I\$K\$P\$O\$N\$T\$Y\$C\$V\$R\$R\$A\$Y\$V\$O\$K\$A\$H\$G\$H\$V\$K\$A\$F 781

Db 1035 K\$S\$H\$V\$T\$L\$D\$L\$Q\$P\$Y\$M\$R\$Q\$F\$V\$A\$H\$L\$O\$E\$T\$S\$P\$L\$R\$D\$A\$V\$I\$E\$O\$S\$S\$L\$N\$E\$A\$S\$S\$G\$L\$F\$D\$V\$F\$L\$R\$F\$M\$C\$H\$H\$A\$V\$R 1094

QY 782 K\$S\$H\$V\$T\$L\$D\$L\$Q\$P\$Y\$M\$R\$Q\$F\$V\$A\$H\$L\$O\$E\$T\$S\$P\$L\$R\$D\$A\$V\$I\$E\$O\$S\$S\$L\$N\$E\$A\$S\$S\$G\$L\$F\$D\$V\$F\$L\$R\$F\$M\$C\$H\$H\$A\$V\$R 841

Db 1095 I\$R\$G\$S\$Y\$V\$O\$C\$G\$I\$P\$O\$G\$S\$I\$L\$T\$L\$C\$S\$L\$C\$Y\$G\$D\$M\$E\$N\$K\$L\$F\$A\$G\$I\$R\$D\$G\$L\$L\$R\$L\$V\$D\$D\$F\$L\$V\$T\$P\$H\$L\$H 1154

QY 842 I\$R\$G\$S\$Y\$V\$O\$C\$G\$I\$P\$O\$G\$S\$I\$L\$T\$L\$C\$S\$L\$C\$Y\$G\$D\$M\$E\$N\$K\$L\$F\$A\$G\$I\$R\$D\$G\$L\$L\$R\$L\$V\$D\$D\$F\$L\$V\$T\$P\$H\$L\$H 901

Db 1155 A\$K\$T\$F\$L\$R\$L\$V\$G\$V\$P\$E\$Y\$G\$C\$V\$N\$L\$R\$K\$T\$V\$N\$F\$P\$V\$E\$D\$E\$A\$L\$G\$T\$A\$F\$O\$M\$P\$A\$H\$G\$L 1202

QY 902 A\$K\$T\$F\$L\$R\$L\$V\$G\$V\$P\$E\$Y\$G\$C\$V\$N\$L\$R\$K\$T\$V\$N\$F\$P\$V\$E\$D\$E\$A\$L\$G\$T\$A\$F\$O\$M\$P\$A\$H\$G\$L 949

Search completed: Tue Jun 27 15:03:02 2000
Job time : 154 secs.

WORLDWIDE
(TM)

Release 3.1A John F. Collins, Biocomputing Research Unit.
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MPsrch_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 18:32:43 2000; MasPar time 5297.94 Seconds

Tabular output not generated. 1358.270 Million cell updates/sec

Title: >US-08-951-733-19

Description: (1-3798) from US08951733.seq

Perfect Score: 3798 1 CCACCGCTCCGGGACGCGT.....GGATATGTCATCCCTGAT 3798

N.A. Sequence: GGTGGCAGGCGCGTGGCGA.....CCTATACGTAGGGGACTA

Scoring table:

TABLE default
Gap 6

Mmatch STD : Dbase 0; Query 0

Searched: 2868244 seqs, 947344977 bases x 2

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database:

n-pending
1:P9 2:06000 3:06001 4:06002A 5:06002B 6:06003A 7:06003B
8:06004A 9:06004B 10:06005 11:06006 12:06007 13:06008A
14:06008B 15:06008C 16:06009A 17:06009B 18:06010A
19:06010B 20:06011 21:06012 22:07 23:080 24:081A 25:081B
26:081C 27:082A 28:082B 29:082C 30:083A 31:083B 32:084A
33:084B 34:084C 35:085 36:086 37:087A 38:087B 39:087C
40:088A 41:088B 42:088C 43:088D 44:089A 45:089B 46:089C
47:089D 48:089E 49:090A 50:090B 51:090C 52:091A 53:091B
54:092A 55:092B 56:092C 57:092D 58:092E 59:092F
60:092G

Statistics: Mean 11.508; Variance 4.082; scale 2.819

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	3798	100.0	3798 46	US-08-951-	Sequence 19, Applicat	0.00e+00
2	3787	99.7	7029 44	US-08-911-	Sequence 1, Applicat	0.00e+00
3	3787	99.7	7029 44	US-08-911-	Sequence 1, Applicat	0.00e+00
4	3784	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
5	3784	99.6	4015 42	US-08-854-	Sequence 224, Applicat	0.00e+00
6	3784	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
7	3784	99.6	4015 50	US-09-052-	Sequence 1, Applicat	0.00e+00
8	3784	99.6	4015 44	US-08-912-	Sequence 1, Applicat	0.00e+00
9	3784	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
10	3784	99.6	4015 52	US-09-128-	Sequence 1, Applicat	0.00e+00
11	3784	99.6	4015 50	US-09-052-	Sequence 1, Applicat	0.00e+00

12	3784	99.6	4015 47	US-08-974-	Sequence 1, Applicat	0.00e+00
13	3781	99.6	4023 49	US-09-026-	Sequence 35, Applicat	0.00e+00
14	3778	99.5	4037 47	US-08-974-	Sequence 343, Applicat	0.00e+00
15	3725	98.1	3964 60	US-09-108-	Sequence 1, Applicat	0.00e+00
16	3661	96.4	4029 47	US-08-974-	Sequence 292, Applicat	0.00e+00
17	3661	96.4	4029 42	US-08-851-	Sequence 173, Applicat	0.00e+00
18	3661	96.4	4029 42	US-08-854-	Sequence 173, Applicat	0.00e+00
19	3477	91.5	3918 60	US-09-108-	Sequence 45, Applicat	0.00e+00
20	3392	89.3	3396 60	US-09-108-	Sequence 40, Applicat	0.00e+00
21	3261	85.9	4022 60	US-09-108-	Sequence 75, Applicat	0.00e+00
22	3176	83.6	3500 60	US-09-108-	Sequence 63, Applicat	0.00e+00
23	3157	83.1	3362 60	US-09-108-	Sequence 43, Applicat	0.00e+00
24	2941	77.4	3466 60	US-09-108-	Sequence 71, Applicat	0.00e+00
25	2912	76.7	7688 60	US-09-108-	Sequence 89, Applicat	0.00e+00
26	2905	76.5	3326 60	US-09-108-	Sequence 49, Applicat	0.00e+00
27	2903	76.4	7797 60	US-09-108-	Sequence 88, Applicat	0.00e+00
28	2848	75.0	2848 46	US-08-951-	Sequence 13, Applicat	0.00e+00
29	2843	74.9	3069 60	US-09-108-	Sequence 41, Applicat	0.00e+00
30	2689	70.8	3432 60	US-09-108-	Sequence 83, Applicat	0.00e+00
31	2627	69.2	3173 60	US-09-108-	Sequence 67, Applicat	0.00e+00
32	2591	68.2	3033 60	US-09-108-	Sequence 47, Applicat	0.00e+00
33	2510	66.1	3855 44	US-08-911-	Sequence 18, Applicat	0.00e+00
34	2510	66.1	3855 44	US-08-911-	Sequence 18, Applicat	0.00e+00
35	2510	66.1	3855 44	US-08-974-	Sequence 4, Applicat	0.00e+00
36	2510	66.1	3855 44	US-08-912-	Sequence 4, Applicat	0.00e+00
37	2375	62.5	3137 60	US-09-108-	Sequence 79, Applicat	0.00e+00
38	2289	60.3	2541 60	US-09-108-	Sequence 38, Applicat	0.00e+00
39	2073	54.6	2645 60	US-09-108-	Sequence 59, Applicat	0.00e+00
40	2060	54.2	7615 60	US-09-108-	Sequence 87, Applicat	0.00e+00
41	1951	51.4	2041 60	US-09-108-	Sequence 36, Applicat	0.00e+00
42	1906	50.2	3451 47	US-08-974-	Sequence 721, Applicat	0.00e+00
43	1892	50.1	3396 47	US-08-974-	Sequence 638, Applicat	0.00e+00
44	1897	49.9	3396 47	US-08-974-	Sequence 638, Applicat	0.00e+00
45	1766	46.5	2031 60	US-09-108-	Sequence 34, Applicat	0.00e+00

ALIGNMENTS

RESULT 1
ID US-08-951-733-19 STANDARD; DNM; UNC; 3798 BP.
AC xxxxxx
DE Sequence 19, Application US/08951733
CC Sequence 19, Application US/08951733
CC GENERAL INFORMATION:
CC APPLICANT: Harrington, Lea A.
CC APPLICANT: Robinson, Murray O.
CC TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS
CC NUMBER OF SEQUENCES: 44
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Amgen Inc.
CC STREET: One Amgen Center Drive
CC CITY: Thousand Oaks
CC STATE: CA
CC COUNTRY: USA
CC ZIP: 91320-1789
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/951,733
CC FILING DATE: 16-OCT-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/873,039
CC FILING DATE: 11-JUN-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/751,189
CC FILING DATE: 15-NOV-1996
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Oleski, Nancy A.

Db	1921	GTCCAGACTCCGGCTTCATCTATCCCAAGCTGACGGGGCTGGCGGGCATGTGTAACATGACTA	1980
Qy	1921	GTCAGACTCCGGCTTCATCTATCCCAAGCTGACGGGGCTGGCGGGCATGTGTAACATGACTA	1980
Db	1981	CGTCGTGGGAGCCAGAACGTTTCCGCAGAGAAAAAGAGGGGCGAGCGTCTCACCCTCGAGGGT	2040
Qy	1981	CGTCGTGGGAGCCAGAACGTTTCCGCAGAGAAAAAGAGGGGCGAGCGTCTCACCCTCGAGGGT	2040
Db	2041	GAAAGCACTGTTCAAGCTGCTCAACTACAGAGCGGGCGCGGGCGCCGCTCTGGCGGC	2100
Qy	2041	GAAAGCACTGTTCAAGCTGCTCAACTACAGAGCGGGCGCGGGCGCCGCTCTGGCGGC	2100
Db	2101	CTCTGTGCTGGGCGCTGGAGCATATCCACAGAGGCGTGGGCGACCTTCGTCTGCTGGTGGC	2160
Qy	2101	CTCTGTGCTGGGCGCTGGAGCATATCCACAGAGGCGTGGGCGACCTTCGTCTGCTGGTGGC	2160
Db	2161	GGCCAGAGACCCGGCGCGCTGAGCTGTACTTGTTCAGAGGTGAGTGTGACGGGCGCTACGA	2220
Qy	2161	GGCCAGAGACCCGGCGCGCTGAGCTGTACTTGTTCAGAGGTGAGTGTGACGGGCGCTACGA	2220
Db	2221	CACCATCCCCAGACAGGCTCACGGAGGTATCGCCAGCATATCAAAACCCAGACAC	2280
Qy	2221	CACCATCCCCAGACAGGCTCACGGAGGTATCGCCAGCATATCAAAACCCAGACAC	2280
Db	2281	GTACTGGGTGGTGGTGGATATCGGTGGGTCGAGAGGGCGGCCAATGGGCAATGTCGGAAGC	2340
Qy	2281	GTACTGGGTGGTGGTGGATATCGGTGGGTCGAGAGGGCGGCCAATGGGCAATGTCGGAAGC	2340
Db	2341	CTTCAAGAGCCACGCTCTCTCACTTGTGACAGACCTCCAGCGTATGCGACATGTGTGGC	2400
Qy	2341	CTTCAAGAGCCACGCTCTCTCACTTGTGACAGACCTCCAGCGTATGCGACATGTGTGGC	2400
Db	2401	TCACCTGCAAGAGACACAGCCCGCTGAGGGATGCGCTGTCATCGAGACAGCTCCTCCCT	2460
Qy	2401	TCACCTGCAAGAGACACAGCCCGCTGAGGGATGCGCTGTCATCGAGACAGCTCCTCCCT	2460
Db	2461	GAATGAGGCCAGACAGTGGGCTCTTCGACAGCTCTTCTCAAGCTTCATATGTGCAACAGCCGT	2520
Qy	2461	GAATGAGGCCAGACAGTGGGCTCTTCGACAGCTCTTCTCAAGCTTCATATGTGCAACAGCCGT	2520
Db	2521	GGCGATGAGGGGCAAGTCTACGCCAGTCCAGGGGATATCCGAGGGGCTCCATCTCTC	2580
Qy	2521	GGCGATGAGGGGCAAGTCTACGCCAGTCCAGGGGATATCCGAGGGGCTCCATCTCTC	2580
Db	2581	CACGCTGCTCTGCAGGCTGTGCTACAGCGGCAATGAGAAACAAGCTGTGTCGGGGATTGCG	2640
Qy	2581	CACGCTGCTCTGCAGGCTGTGCTACAGCGGCAATGAGAAACAAGCTGTGTCGGGGATTGCG	2640
Db	2641	GGGGAGCGGGCTGCTCCTCGGCTTGGTGATGATTTCTTGTGTGACACCTCACCTCAC	2700
Qy	2641	GGGGAGCGGGCTGCTCCTCGGCTTGGTGATGATTTCTTGTGTGACACCTCACCTCAC	2700
Db	2701	CCACGCGAAAACTTCTCTCAAGAACCCGAGCGGAGGTGCCGAGTANGGCTGGTGGT	2760
Qy	2701	CCACGCGAAAACTTCTCTCAAGAACCCGAGCGGAGGTGCCGAGTANGGCTGGTGGT	2760
Db	2761	GAACCTGGGAGAGCACTGTGTAATCCCTGTAGAAGACGAGGCGCTGGGTGCACGGC	2820
Qy	2761	GAACCTGGGAGAGCACTGTGTAATCCCTGTAGAAGACGAGGCGCTGGGTGCACGGC	2820
Db	2821	TTTTTGTTCAGATGCGGGCCACAGGGCTATTCCCTGTGTCGGGCTGTGCTGGATACCG	2880
Qy	2821	TTTTTGTTCAGATGCGGGCCACAGGGCTATTCCCTGTGTCGGGCTGTGCTGGATACCG	2880
Db	2881	GACCTGGAGGTGGAGAGGCAATATCCACACTATGGCCGGAGCTCCATATAGAGCCAGCT	2940
Qy	2881	GACCTGGAGGTGGAGAGGCAATATCCACACTATGGCCGGAGCTCCATATAGAGCCAGCT	2940
Db	2941	CACCTTCAACCGCGCTTCAAGGCTGGGAGAACATGCGTGCAGAACTTTTGGGGCTTT	3000
Qy	2941	CACCTTCAACCGCGCTTCAAGGCTGGGAGAACATGCGTGCAGAACTTTTGGGGCTTT	3000
Db	3001	CGGGCTGAAGTGTACAGAGCTGTTTCTGATTTGCAAGGTGAACAGGCTTCAGACGGGTG	3060

Qy	3001	GGGGCTGAAGTGTACAGAGCTGTTTGTGGATTGGCAGGTGAAGACGCTTCAGAGGGGTGTG	3060
Db	3061	CACCAACATCTACAAAGATCCTCTGCTGACAGGCGTACAGATTTACAGCATGTGTCTGCA	3120
Qy	3061	CACCAACATCTACAAAGATCCTCTGCTGACAGGCGTACAGATTTACAGCATGTGTCTGCA	3120
Db	3121	GCTCCCATTTTCATCAGCAAGTTTGGAAAGAACCCACATTTTCTCGCGGTCATCTCGA	3180
Qy	3121	GCTCCCATTTTCATCAGCAAGTTTGGAAAGAACCCACATTTTCTCGCGGTCATCTCGA	3180
Db	3181	CAGGAGCTCCCTGTGCTACTCCATCCTGTGAAGCCAAAGAACGAGGAGATGTGCTGGGGCC	3240
Qy	3181	CAGGAGCTCCCTGTGCTACTCCATCCTGTGAAGCCAAAGAACGAGGAGATGTGCTGGGGCC	3240
Db	3241	CAAGGGGCGCGCGGCGCTCTGTGCTTCGAGAGCCGTGCAGTGGCTGTGCCACCAAGCATY	3300
Qy	3241	CAAGGGGCGCGCGGCGCTCTGTGCTTCGAGAGCCGTGCAGTGGCTGTGCCACCAAGCATY	3300
Db	3301	CCTGCTCAAGTACTGTGACACCGGTGTACATACGTGTCATCTCTGGGGTCACTCAGAC	3360
Qy	3301	CCTGCTCAAGTACTGTGACACCGGTGTACATACGTGTCATCTCTGGGGTCACTCAGAC	3360
Db	3361	AGCCGACGCGAGTGTGTGGAAAGTCCCGGGGAAGACGCGTACGTGGCTCGAGGGCGCG	3420
Qy	3361	AGCCGACGCGAGTGTGTGGAAAGTCCCGGGGAAGACGCGTACGTGGCTCGAGGGCGCG	3420
Db	3421	AGCCACCCGCGCACTGCGCTCAACACTTCAAGACCAATCCTGACTGATGGCCACCCGCCA	3480
Qy	3421	AGCCACCCGCGCACTGCGCTCAACACTTCAAGACCAATCCTGACTGATGGCCACCCGCCA	3480
Db	3481	CAGCCAGCGGAGAGCAGACACCAAGCAGCCCTGTACAGCGCGGGCTCTACGTCCAGGGAG	3540
Qy	3481	CAGCCAGCGGAGAGCAGACACCAAGCAGCCCTGTACAGCGCGGGCTCTACGTCCAGGGAG	3540
Db	3541	GGAGGGGCGGCGCCACACCCAGGCGCCGCTGGGAGTCTGAGGCTTGATGATGTTT	3600
Qy	3541	GGAGGGGCGGCGCCACACCCAGGCGCCGCTGGGAGTCTGAGGCTTGATGATGTTT	3600
Db	3601	GGCGAGGCGCTGCATGTCCGGCTGGAAGGCTGAGTGCGGCTGAGAGGCTGAGAGCGATGTC	3660
Qy	3601	GGCGAGGCGCTGCATGTCCGGCTGGAAGGCTGAGTGCGGCTGAGAGGCTGAGAGCGATGTC	3660
Db	3661	CAGCAAGAGGGGTAGTGTCCAGCACACCTGCGCTTTCACCTCCCCACAGGCTGGCGCTC	3720
Qy	3661	CAGCAAGAGGGGTAGTGTCCAGCACACCTGCGCTTTCACCTCCCCACAGGCTGGCGCTC	3720
Db	3721	GGCTCCACCCCGAGGGCCAGCTTTTCTCTACACAGAGACCCGGCTTCACTCCCCACATAGG	3780
Qy	3721	GGCTCCACCCCGAGGGCCAGCTTTTCTCTACACAGAGACCCGGCTTCACTCCCCACATAGG	3780
Db	3781	AATAGTCATCCTCCCTGAT 3798	
Qy	3781	AATAGTCATCCTCCCTGAT 3798	
RESULT 2			
ID	US-08-911-312-1 STANDARD: DNA; UNC: 7029 BP.		
AC	xxxxxx		
DE	Sequence 1, Application US/08911312		
CC	Sequence 1, Application US/08911312		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William		
CC	TITLE OF INVENTION: Telomerase Reverse Transcriptase		
CC	NUMBER OF SEQUENCES: 170		
CC	CORRESPONDENCE ADDRESS:		

CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Binhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 7029 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 782..4177
CC OTHER INFORMATION: /Product= "human telomerase reverse
CC OTHER INFORMATION: transcriptase (hTERT)"
CC OTHER INFORMATION: /note= "CDNA contained in plasmid
CC OTHER INFORMATION: pCRN121"
CC SEQUENCE 7029 BP: 1416 A; 2122 C; 2051 G; 1440 T; 0 OTHER.
Query Match 99.7%; Score 3787; DB 44; Length 7029;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 3791; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 124 CGAGTGTCTGCCCTGCGCACGTTTGTCGGGCGCTGGGGCCCCAGGGCTGGCGGCTGCT 183
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QY 184 GCAGCGCGGGGAGACCGGGGAGCTTTCCGGCGCTGTGTGGCCCAAGTCTGTGTGGCTGCC 243
DB CTGGGACGACGAGCGGCCCGCCCGCCCGCCCTCTTCCGCCAGGTGTCTTCGCTGAAGA 1017
QY 244 CTGGGACGACGAGCGGCCCGCCCGCCCGCCCTCTTCCGCCAGGTGTCTTCGCTGAAGA 303
DB GCTGTGGCGCCGAGTGTGTGACAGAGCTGTGGAGGCGGGCGGAAGACGTCGTGCGCTT 1077
QY 304 GCTGTGGCGCCGAGTGTGTGACAGAGCTGTGGAGGCGGGCGGAAGACGTCGTGCGCTT 363
DB CGGCTTCGCGCTGTGTGACGAGGCGGCCCGCCCGCCCGCCCGCCGAGGCTTTCACACACGCT 1137
QY 364 CGGCTTCGCGCTGTGTGACGAGGCGGCCCGCCCGCCCGCCCGCCGAGGCTTTCACACACGCT 423
DB GCGCAGCTACTGTGCTCAACACAGGTGACGACGCTGTGGGGAGCGGGGCGCTGTGGGGCT 1197
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DB GCTGTGGCGCCGAGTGTGTGACAGAGCTGTGGAGGCGGGCGGAAGACGTCGTGCGCTT 1257
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DB TGTGTGTGTGTGCTCCAGCTGTGCTTACAGAGTGTGGGGCGCGCTGTACACAGCTGG 1317
QY 544 TGTGTGTGTGTGCTCCAGCTGTGCTTACAGAGTGTGGGGCGCGCTGTACACAGCTGG 603
DB CGCTGCTGAGTGTGCTCCAGCTGTGCTTACAGAGTGTGGGGCGCGCTGTACACAGCTGG 1377
QY 604 CGCTGCTGAGTGTGCTCCAGCTGTGCTTACAGAGTGTGGGGCGCGCTGTACACAGCTGG 663
DB CGAAGGCGCTGTGAACCACTAGAGTGTGAGGAGCGCGGGTCCCTGGGCTGTGCCAGGCC 1437
QY 664 CGAAGGCGCTGTGAACCACTAGAGTGTGAGGAGCGCGGGTCCCTGGGCTGTGCCAGGCC 723
DB GGGTGTGAGGAGCGCGGGGAGTGTGCCAGGAGTGTGCCAGGAGTGTGCCAGGAGCGCCAG 1497
QY 724 GGGTGTGAGGAGCGCGGGGAGTGTGCCAGGAGTGTGCCAGGAGTGTGCCAGGAGCGCCAG 783
DB GCGTGGCGCTGCTGTGAGCGCGGAGCGCGGAGTGTGCCAGGAGTGTGCCAGGAGCGCCAG 1557
QY 784 GCGTGGCGCTGCTGTGAGCGCGGAGCGCGGAGTGTGCCAGGAGTGTGCCAGGAGCGCCAG 843
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QY 844 GGGCAGGAGCGGTGTGAGCGGAGTGTGCCAGGAGTGTGCCAGGAGTGTGCCAGGAGCGCC 903
DB CGAAGAGCCACCTTTTGAAGGTGCGCTGTGAGCGCGCCACCTCCACCCATCCGT 1677
QY 904 CGAAGAGCCACCTTTTGAAGGTGCGCTGTGAGCGCGCCACCTCCACCCATCCGT 963
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QY 964 GGGCGCGGAGACACGAGCGGGGCGCCCGCCATCCACATCGGGGACACACGTCCTGGGAGAC 1023
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QY 1024 GCGTGTGCTCCCGGAGTGTGAGCGCGGAGACACGTCCTTACTTCTGAGCGACAAAGA 1083
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QY 1084 GCACTGTGGCGCTGTCTTCTACTAGCTGTCTGAGCGCGGAGCTGAGCTGAGCTGCGAG 1143
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QY 1204 GCCCGCGCTGCGCCAGCGCTACTGTGCAATGCGGGCGCGCTTGTGTGAGAGTGTGGGAA 1263

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Qy	2464	TGAGGCGACAGTAGTGGCTCTTTCGACGCTTCTCTACGCTTCATGTGCGACACAGCCGTGCG	25233
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Qy	2524	CATCAGGGGCAAGTCCTAGCTCCAGTCCAGGAGATCCGCGAGGCGTCCATCTCTCCAC	25833
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Qy	2644	GGACGGGCTGTCTCTGCGTTTGGGGATGATTTCTTGTGTGACACGTCACACTCACCA	27030
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Qy	2704	CGCGAAAACCTTCTCTCAGAGACCCTGTGTGCGAGGTGTCCTGTAGTATGGCTGCGGTGAA	2763
Db	3478	CTTGGGGAAAGACATGTGTGAATTCCTCTGTAGAAAGACAGGCGCTTGGTGGGACGGCTTT	3537
Qy	2764	CTTGGGGAAAGACATGTGTGAATTCCTCTGTAGAAAGACAGGCGCTTGGTGGGACGGCTTT	2823
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Qy	3064	CACATCTACACAGATTCCTCTGTGTGCGAGCGGTACAGGTTTACAGCATGTGTCTGACACT	3123
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QY	3424	CAACCCGGCACTGCGCTTCAGACTTTCAAAGAACATCTTGACACTATG6CCACCCGCCACAG	3483
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QY	3544	GGGGGGGGCCACACACCACAGGGCCCGACCGCTGGAGAGCTAGAGGCTGAGTATGTTTGGC	3603
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QY	3604	CGAGCGCTGCATGTCTGGGCTGAAGGCTGAGTGTCTGGCTGAGGCGCTGAGCGAGTGTCCAG	3653
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QY	3664	CCAAGGGCTGAGTGTCTCAGACACACTGCGGCTCTTCACTTCCCCACAGAGTGGCGCTCGGC	3723
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ID	US-08-911-312A-1 STANDARD; DNA; UNC; 7029 BP.
AC	xxxxxx

DE Sequence 1, Application US/08911312A
CC Sequence 1, Application US/08911312A
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
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CC APPLICATION NUMBER: US 08/846,017
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CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:

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CC APPLICATION NUMBER: US 08/854,050
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CC PRIOR APPLICATION DATA:
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CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015589-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 7029 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 782..4177
CC OTHER INFORMATION: /product= "human telomerase reverse
CC OTHER INFORMATION: transcriptase (hTert)"
CC OTHER INFORMATION: /note= "cDNA contained in plasmid
CC OTHER INFORMATION: pGRN121"
CC SEQUENCE 7029 bp; 1416 A; 2122 C; 2051 G; 1440 T; 0 OTHER.

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Query Match	99.7%	Score 3787	DB 44	Length 7029
Best Local Similarity	99.9%	Pred. No. 0.00e+00		
Matches 3791	Conservative	0	Mismatches 4	Indels 0
				Gaps 0
Db	718	CGCGTCGACGACGCGCTGCTCTGCTGCGACGAGGGAGACCCCTGCGCCCGGACACCC	777	-
QY	4	CGCGCTCGGGGACGCGCTGCTCTGCTCTGCGACGAGGGAGAACCCCTGCGCCCGGACACCC	63	
Db	778	CGCGATGCGGGGCGGCTCCCGGCTGCGACGCGGTGGGCTCCCTGCGGGCAGCACTACCG	837	-
QY	64	CGCGATGCGGGGCGGCTCCCGGCTGCGACGCGGTGGGCTCCCTGCGGGCAGCACTACCG	123	
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QY	124	CGAGTGTCTGCGCGTGGCGACGTTTCGTCGGCGCGCTGGGGGCCCAAGGGCTGGGCTGT	183	
Db	898	GCAGCGCGGGGACCCCGCGGCTTTCCGCGCGCTGTGTGGCCAGTGTCTGTGTGTGCTGC	957	
QY	184	GCAGCGCGGGGACCCCGGGGCTTTCCGCGCGCTGTGTGGCCAGTGTCTGTGTGTGCTGC	243	
Db	958	CTGGGACACGACGGCGCGCCCGCGCCCTTCCTTCGCGACGAGTGTCTGTGCTCAAGGA	1017	
QY	244	CTGGGACACGACGGCGCGCCCGCGCCCTTCCTTCGCGACGAGTGTCTGTGCTCAAGGA	303	
Db	1018	GCTGTGCGCCGAGTGTCTGCAGAGGCTGTGCGAGCGCGGCGCAAGACGTGTGGCTT	1077	
QY	304	GCTGTGCGCCGAGTGTCTGCAGAGGCTGTGCGAGCGCGGCGCAAGACGTGTGGCTT	363	
Db	1078	CGGCTTCCGCGTGTGGAGAGGGGGGCGCGGGGGGCGCCCGCCAGAGCTTACACACAGGT	1137	
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 QY 904 CGAAGAAGCCACTCTTTGGAGGGTGCCTCTGTGGCAGCGCCGACTCCACCCATCCG 963
 Db 1678 GGGCCGCGAGCACAGCGGGGCCCGCCATCCAGATCGCGGCCACAGCTGCCAGAGAC 1737
 QY 964 GGGCCGCGAGCACAGCGGGGCCCGCCATCCAGATCGCGGCCACAGCTGCCAGAGAC 1023
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 Db 1978 CCACGGCGAGTGGCCCTTACGGGGTGTCTTCAAGACGACACTGCCGCTGGAGCTGGGT 2037
 QY 1264 CCACGGCGAGTGGCCCTTACGGGGTGTCTTCAAGACGACACTGCCGCTGGAGCTGGGT 1323
 Db 2038 CACCCGAGCAGCGGTGTCTGTGCCCCGGGAGAAAGCCCAAGGGCTGTGTGGCGCCCGA 2097
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 Db 2158 GCAAGGTACAGGCTTGT 2217
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Db	4258	GGGGGCGGCCACACCCAGAGCCCGACCGCTGGGAGTCTGAGGCTGAGTGAATGTTTGGC	4317
Oy	3544	GGGGGCGGCCACACCCAGAGCCCGACCGCTGGGAGTCTGAGGCTGAGTGAATGTTTGGC	3603
Db	4318	CGAGGCTGCATGTCGCGGTGAAGAGCTGAGTGTCCGGCTGAAGGCTGACGACAGTGTCCAG	4377
Oy	3604	CGAGGCTGCATGTCGCGGTGAAGAGCTGAGTGTCCGGCTGAAGGCTGACGACAGTGTCCAG	3663
Db	4378	CCAAGGGCTGATGTCCAGACACCTGCGCTTTCACCTTCCACACAGGCTGGCGGTCCGC	4437
Oy	3664	CCAAGGGCTGATGTCCAGACACCTGCGCTTTCACCTTCCACACAGGCTGGCGGTCCGC	3722
Db	4438	TCCAACCCCAAGGCCAGCTTTTCTCTACACAGAGACCCGGCTTCACCTCCACATAGGAAT	4497
Oy	3724	TCCAACCCCAAGGCCAGCTTTTCTCTCTACACAGAGACCCGGCTTCACCTCCACATAGGAAT	3783
Db	4498	AGTCATCTCCCAAGT 4512	
Oy	3784	AGTCATCTCCCTGAT 3798	

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DE      4      RESULT
ID      PCT-US99-07160-1 STANDARD: DNA; UNC: 4015 BP.
AC      xxxxxx
DT
Sequence 1, Application PC/TUS9907160
CC      Sequence 1, Application PC/TUS9907160
CC      GENERAL INFORMATION:
CC      APPLICANT: Cecn, Thomas R.
CC      APPLICANT: Lingner, Joachim
CC      APPLICANT: Nakamura, Toru
CC      APPLICANT: Chapman, Karen B.
CC      APPLICANT: Morin, Gregg B.
CC      APPLICANT: Harley, Calvin B.
CC      APPLICANT: Andrews, William H.
CC      APPLICANT: Geiron Corporation
CC      APPLICANT: University Technology Corporation
CC      TITLE OF INVENTION: Antisense Compositions for Detecting and Inhibiting
CC      TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC      FILE REFERENCE: 015389-003610PC
CC      CURRENT APPLICATION NUMBER: PCT/US99/07160
CC      CURRENT FILING DATE: 1999-03-31
CC      EARLIER APPLICATION NUMBER: US 08/724,643
CC      EARLIER FILING DATE: 1996-10-01
CC      EARLIER APPLICATION NUMBER: US 08/844,419
CC      EARLIER FILING DATE: 1997-04-18
CC      EARLIER APPLICATION NUMBER: US 08/846,017
CC      EARLIER FILING DATE: 1997-04-25
CC      EARLIER APPLICATION NUMBER: US 08/851,843
CC      EARLIER FILING DATE: 1997-05-06
CC      EARLIER APPLICATION NUMBER: US 08/854,050
CC      EARLIER FILING DATE: 1997-05-09
CC      EARLIER APPLICATION NUMBER: US 08/911,312
CC      EARLIER FILING DATE: 1997-08-14
CC      EARLIER APPLICATION NUMBER: US 08/912,951
CC      EARLIER FILING DATE: 1997-08-14
CC      EARLIER APPLICATION NUMBER: US 08/915,503
CC      EARLIER FILING DATE: 1997-08-14
CC      EARLIER APPLICATION NUMBER: WO PCT/US97/17618
CC      EARLIER FILING DATE: 1997-10-01
CC      EARLIER APPLICATION NUMBER: WO PCT/US97/17885
CC      EARLIER FILING DATE: 1997-10-01
CC      EARLIER APPLICATION NUMBER: US 08/974,549
CC      EARLIER FILING DATE: 1997-11-19
CC      EARLIER APPLICATION NUMBER: US 08/974,584
CC      EARLIER FILING DATE: 1997-11-19
CC      EARLIER APPLICATION NUMBER: US 09/052,919
CC      EARLIER FILING DATE: 1998-03-31
CC      NUMBER OF SEQ ID NOS: 72
CC      SOFTWARE: Patentin Ver. 2.0
CC      SEQ ID NO 1
CC      LENGTH: 4015
CC      TYPE: DNA
CC      ORGANISM: Homo sapiens
CC      FEATURE:
CC      NAME/KEY: CDS
CC      LOCATION: (56)..(3454)
CC      OTHER INFORMATION: human telomerase reverse transcriptase (HTRT)
SQ      SEQUENCE 4015 BP: 663 A; 1363 G; 1275 G; 714 T; 0 OTHER.

Query Match      99.6%; Score 3784; DB 57; Length 4015;
Best Local Similarity 100.0%; Pred.No. 0.00e+00;
Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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133 GCGCGTGGCACGTTGCGTGGGGGCGCTGGGGGCCCGAGGGCGTGGGGGCTGGTGCAGCGCGG 192
Db 181 GGACCGGGGCGCTTTCGGCGCGTGGTGGCCAGTGGCTGGTGGTGGCTGGCTGGAGAGC 240
Qy 193 GGACCGGGGCGCTTTCGGCGCGTGGTGGCCAGTGGCTGGTGGTGGCTGGCTGGAGAGC 252
Db 241 ACGGCGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 300
Qy 253 AGGGCGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 312
Db 301 CCGAGTCTGAGAGGCTGTGCGAGCGCGCGGCGAGAGACGTGGTGGCGCTTGGCTGGC 360
Qy 313 CCGAGTCTGAGAGGCTGTGCGAGCGCGCGGCGAGAGACGTGGTGGCGCTTGGCTGGC 372
Db 361 GCTGCTGAGAGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 420
Qy 373 GCTGCTGAGAGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 432
Db 421 CCTGCGCCAAACGGGTGACCGGACGCTGCGGGGAGCGGGGCGGGGCGGGGCGGGGCGGGGCG 480
Qy 433 CTTGCGCCAAACGGGTGACCGGACGCTGCGGGGAGCGGGGCGGGGCGGGGCGGGGCGGGGCG 492
Db 481 CCGGCTGGGCGACGACGTGCTGGTTCACCTGCTGGACGCTGGCGGCTCTTGTGTGGT 540
Qy 493 CCGGCTGGGCGACGACGTGCTGGTTCACCTGCTGGACGCTGGCGGCTCTTGTGTGGT 552
Db 541 GCGTCCAGCTGCGCTACACAGGTGTGGGGCGCGCGCTGTACAGCTGGCGGCTGGCAC 600
Qy 553 GCGTCCAGCTGCGCTACACAGGTGTGGGGCGCGCGCTGTACAGCTGGCGGCTGGCAC 612
Db 601 TCAGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 660
Qy 613 TCAGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 672
Db 661 CTGGAACCATAGCTACAGGAGCGCGGGGCTCCCTGGGCGCTGGCAGCGCGGGTGGCAG 720
Qy 673 CTGGAACCATAGCTACAGGAGCGCGGGGCTCCCTGGGCGCTGGCAGCGCGGGTGGCAG 732
Db 721 GAGGCGGGGGGCGAGTGGCCAGCCGAGTCTGCGGTGGCCAAAGAGGCCAGGCGTGGCG 780
Qy 733 GAGGCGGGGGGCGAGTGGCCAGCCGAGTCTGCGGTGGCCAAAGAGGCCAGGCGTGGCG 792
Db 781 TGGCCCGAGCGGAGGAGGAGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 840
Qy 793 TGGCCCGAGCGGAGGAGGAGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 852
Db 841 GCGTGGACCGAGTACCGT 900
Qy 853 GCGTGGACCGAGTACCGT 912
Db 901 CACCTCTTTGGAGGGTGGCTCTGTGGCAGCGGCACCTCCACCACCTCCGTGGGCGGGCA 960
Qy 913 CACCTCTTTGGAGGGTGGCTCTGTGGCAGCGGCACCTCCACCACCTCCGTGGGCGGGCA 972
Db 961 GCACACGCGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 1020
Qy 973 GCACACGCGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 1032
Db 1021 CCGGCTGACCGCGAGACCAAGCACTTCTACTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1080
Qy 1033 CCGGCTGACCGCGAGACCAAGCACTTCTACTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1092
Db 1081 GCGCT 1140
Qy 1093 GCGCT 1152
Db 1141 GACCATCTTTTGGGTTTCCAGGCGCTGGATGCGAGGACCTCCCGGAGGTTGCCCGGCT 1200
Qy 1153 GACCATCTTTTGGGTTTCCAGGCGCTGGATGCGAGGACCTCCCGGAGGTTGCCCGGCT 1212
Db 1201 GCGCCAGGCGCTACTGGCAATGAGGCGCGCTTCTGTGGAGTGGTGGGAACAGCGGCA 1260
Qy 1213 GCGCCAGGCGCTACTGGCAATGAGGCGCGCTTCTGTGGAGTGGTGGGAACAGCGGCA 1272

Db 1261 GTGCCCTTACGGGGTGTCTCTCAAGACGACCTGCCGCTGGAGCTGGGTACACCCAGC 1320
Qy 1273 GTGCCCTTACGGGGTGTCTCTCAAGACGACCTGCCGCTGGAGCTGGGTACACCCAGC 1332
Db 1321 AGCGGT 1380
Qy 1333 AGCGGT 1392
Db 1381 CACAGACCGCGTGGCTGGT 1440
Qy 1393 CACAGACCGCGTGGCTGGT 1452
Db 1441 CGGCTGT 1500
Qy 1453 CGGCTGT 1512
Db 1501 CAAGCAAGCGCGTCTCTCAAGAACACCAAGAACTTCCTCTGGGGAAGCATGGCA 1560
Qy 1513 CAAGCAAGCGCGTCTCTCAAGAACACCAAGAACTTCCTCTGGGGAAGCATGGCA 1572
Db 1561 GCTCTGCTGAGGAGCTGACGTGGAGATGAGCGTGGGAGTGGCTGGCTGGCGAG 1620
Qy 1573 GCTCTGCTGAGGAGCTGACGTGGAGATGAGCGTGGGAGTGGCTGGCTGGCGAG 1632
Db 1621 GAGCCAGGGGTTGGT 1680
Qy 1633 GAGCCAGGGGTTGGT 1692
Db 1681 CAAGTCTGCTGACGTGGT 1740
Qy 1693 CAAGTCTGCTGACGTGGT 1752
Db 1741 TGTACGAGAGACACGTTTCAAAAGACAGGCTTTTCTTACCGGAAGATGTCTGGAG 1800
Qy 1753 TGTACGAGAGACACGTTTCAAAAGACAGGCTTTTCTTACCGGAAGATGTCTGGAG 1812
Db 1801 CAAGTGTCAAAAGCATTTGGAATCAGACAGCACTTGAAGAGGTTGACGTCGGAGCTGTC 1860
Qy 1813 CAAGTGTCAAAAGCATTTGGAATCAGACAGCACTTGAAGAGGTTGACGTCGGAGCTGTC 1872
Db 1861 GGAAGCAGAGTCAAGAGATTCGGGAAGCCAGGCGCGCTGTGTGTGTGTGTGTGTGTGT 1920
Qy 1873 GGAAGCAGAGTCAAGAGATTCGGGAAGCCAGGCGCGCTGTGTGTGTGTGTGTGTGTGT 1932
Db 1921 CTTGATCCCAAGGCTGACGGGCTGGCGGCGATTTGTGAACATGAGTACGTCGGAGC 1980
Qy 1933 CTTGATCCCAAGGCTGACGGGCTGGCGGCGATTTGTGAACATGAGTACGTCGGAGC 1992
Db 1981 CAGAAGCTTCCGACAGAGAAAAGAGGGCGAGGCTGTACCTCGAGGGTGAAGGACATGTT 2040
Qy 1993 CAGAAGCTTCCGACAGAGAAAAGAGGGCGAGGCTGTACCTCGAGGGTGAAGGACATGTT 2052
Db 2041 CAGGCTGTCAACTACAGAGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 2100
Qy 2053 CAGGCTGTCAACTACAGAGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGG 2112
Db 2101 CCGTGGAGATATCCAGAGGGGCTGGCGACCTTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2160
Qy 2113 CCGTGGAGATATCCAGAGGGGCTGGCGACCTTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2172
Db 2161 GCGGCTGAGCTGTACTTGTCAAGGTGATGTAGCGGGGCGGTACGACACACATCCCCA 2220
Qy 2173 GCGGCTGAGCTGTACTTGTCAAGGTGATGTAGCGGGGCGGTACGACACACATCCCCA 2232
Db 2221 GGAAGGCTCACGAGGTCATCGCCAGCATCATCAAAACCCAGAAACAGTACTGCGTGG 2280
Qy 2233 GGAAGGCTCACGAGGTCATCGCCAGCATCATCAAAACCCAGAAACAGTACTGCGTGG 2292
Db 2281 TCGGTATGCGCTGTGTCCAGAAAGCGCGCCATGTGGCAGCTCGCAAGGCGCTTCAAGAGCA 2340
Qy 2293 TCGGTATGCGCTGTGTCCAGAAAGCGCGCCATGTGGCAGCTCGCAAGGCGCTTCAAGAGCA 2352

Query Match	99.68;	Score 3784;	DB 42;	Length 4015;
Best Local Similarity	100.0%;	Pred. No. 0.00e+00;		
Matches 3785;	Conservative 0;	Mismatches 1;	Indels 0;	Gaps 0

Db	661	CTGGAACCATAGCGTCAGAGGAGCGGAGGGATCCCGCTGGCGCTGCCAGTCCCGGGGTGGAG	720
Oy	673	CTGAAACCATATAGGCTCAGGAGAGGCGCGGGGTCCCGCTGGCGCTGCCAGTCCCGGGGTGGAG	732
Db	721	GAGGCGCGGGGGGAGTGTCCAGGCCGAAGTCTGGCTTTGGCCAAAGAGAGGCCAGCGTGGCGC	780
Oy	723	GAGGCGCGGGGGGAGTGTCCAGGCCGAAGTCTGGCGCTTTGGCCAAAGAGAGGCCAGCGTGGCGC	792
Db	781	TGCCCCCTGAGCCCGGAGCGAGACGCCCGTTGGGCGAGGGGTCTTGGGCCACCCGGGCGAGAC	840
Oy	793	TGCCCCCTGAGCGCGGAGCGAGACGCCCGTTGGGCGAGGGGTCTTGGGCCACCCGGGCGAGAC	852
Db	841	GCGTGAGCCGATGATCCGCTGGTTTCTGTGTGGTGTACCTGTCCAGACACCCGCCGAAGAAGC	900
Oy	853	GCGTGAGCCGATGATCCGCTGGTTTCTGTGTGGTGTACCTGTCCAGACACCCGCCGAAGAAGC	912
Db	901	CACCTCTTGAAGGGGTGCGCTCTCTGTGGCAGCGGCCACTCCACCCATCGTGGGGCCGCA	960
Oy	913	CACCTCTTGAAGGGGTGCGCTCTCTGTGGCAGCGGCCACTCCACCCATCGTGGGGCCGCA	972
Db	961	GCACACGCGGGGCCCGCCATACATCGGGGGCACAGTCCCTGTGGGACAGCGCTTGGC	1020
Oy	973	GCACACGCGGGGCCCGCCATACATCGGGGGCACAGTCCCTGTGGGACAGCGCTTGGC	1032
Db	1021	CCCGGTGTACGCCGAGACCAAGCACTTCTCTACTCTTGAAGCGACAAGAGAGACGTGCG	1080
Oy	1033	CCCGGTGTACGCCGAGACCAAGCACTTCTCTACTCTTGAAGCGACAAGAGAGACGTGCG	1092
Db	1081	GCCCTCTCTCTACTACATGACTCTTGAAGGCCAGACCTGACTGGCGCTCGGAGGCTGTGGA	1140
Oy	1093	GCCCTCTCTCTACTACATGACTCTTGAAGGCCAGACCTGACTGGCGCTCGGAGGCTGTGGA	1152
Db	1141	GACCATTTTCTGTGGTCTCCAGGCCCTGAGATGCGACAGGACTCCCGCCAGATTGCCCGCGCT	1200
Oy	1153	GACCATTTTCTGTGGTCTCCAGGCCCTGAGATGCGACAGGACTCCCGCCAGATTGCCCGCGCT	1212
Db	1201	GCCCCAGCGCTACTGSCAAATGCGGCCCTCTTTCTGTGAGCTGTGTTGGAAACACAGCGCA	1260
Oy	1213	GCCCCAGCGCTACTGSCAAATGCGGCCCTCTTTCTGTGAGCTGTGTTGGAAACACAGCGCA	1272
Db	1261	GTGGCCCTACGGGGGTGCTCTCAAGACGGACGTGCCGGTGGGAGGTGGGTATCCCGCAGC	1320
Oy	1273	GTGGCCCTACGGGGGTGCTCTCAAGACGGACGTGCCGGTGGGAGGTGGGTATCCCGCAGC	1332
Db	1321	AGCGGTGTCTGTGTCGCCGGGAGAGGCCCAAGGGCTCTGTGGCGGCCGCCCGAGAGAGAGA	1380
Oy	1333	AGCGGTGTCTGTGTCGCCGGGAGAGGCCCAAGGGCTCTGTGGCGGCCGCCCGAGAGAGAGA	1392
Db	1381	CACAGACCCCGGTGCGCTGGTGTGACGTGCTCGGCCACAGACAGCCCTTGCGAGGTGTA	1440
Oy	1393	CACAGACCCCGGTGCGCTGGTGTGACGTGCTCGGCCACAGACAGCCCTTGCGAGGTGTA	1452
Db	1441	CGGCTGTGTGGGGGCGCTGTGGCGCGCGGTGGGGGCCCGCCAGGCGCTGTGGGGTCTCAGGCA	1500
Oy	1453	CGGCTGTGTGGGGGCGCTGTGGCGCGCGGTGGGGGCCCGCCAGGCGCTGTGGGGTCTCAGGCA	1512
Db	1501	CAACGAACGCCGCTTCTCTAGAGAACACCAAGAGTTCACTCTCCGTGGGGAACATGCA	1560
Oy	1513	CAACGAACGCCGCTTCTCTAGAGAACACCAAGAGTTCACTCTCCGTGGGGAACATGCA	1572
Db	1561	GCTCTGCTGAGAGGTGATGACGTGAGGAAGATGAGCGTGGCGGACATCGCTTGGCTGGCAG	1620
Oy	1573	GCTCTGCTGAGAGGTGATGACGTGAGGAAGATGAGCGTGGCGGACATCGCTTGGCTGGCAG	1632
Db	1621	GAGCCACAGGGGTGGCTGTGTTTCCGGGCCCGAGAGCACGCTGTGCGCTGAGAGATCTTGGC	1680
Oy	1633	GAGCCACAGGGGTGGCTGTGTTTCCGGGCCCGAGAGCACGCTGTGCGCTGAGAGATCTTGGC	1692
Db	1681	CAAGTCTCTGACAGCTGTATGATGATGTATACGTCTGACAGCTGTCAAGTCTTCTTTTA	1740
Oy	1693	CAAGTCTCTGACAGCTGTATGATGATGTATACGTCTGACAGCTGTCAAGTCTTCTTTTA	1752

Db	1741	TTGACGGAGACCAAGCTTTTAAAGAAACAGCGCTTTTCTACCGGAGAGAGTGTGGAG	1800
Oy	1753	TGTACAGGAGACCAAGCTTTTAAAGAAACAGCGCTTTTCTACCGGAGAGAGTGTGGAG	1812
Db	1801	CAAGTTCCAAAGCAATTTGGAATTCAGACAGCACTTGAAGAGGGGTGCAGCTGCGGGAGCTGTC	1860
Oy	1813	CAAGTTCCAAAGCAATTTGGAATTCAGACAGCACTTGAAGAGGGGTGCAGCTGCGGGAGCTGTC	1872
Db	1861	GGAAAGCAGAGGTCAAGGCAGCATGCGGGAAGCCAGGCGCCGCTGCTGACGTCCAGACTCCG	1920
Oy	1873	GGAAAGCAGAGGTCAAGGCAGCATGCGGGAAGCCAGGCGCCGCTGCTGACGTCCAGACTCCG	1932
Db	1921	CTTCATCCCCCAAGCTCAGGGGGGCTGGGGCGGATTTGAAACATGAGACTACGTGTGGAGC	1980
Oy	1933	CTTCATCCCCCAAGCTCAGGGGGGCTGGGGCGGATTTGAAACATGAGACTACGTGTGGAGC	1992
Db	1981	CAGAACGTTCCGCGAGAGAAAAAGAGGGCCGAGCGCTGCACCTCGAGGGGTGAAGGCACGT	2040
Oy	1993	CAGAACGTTCCGCGAGAGAAAAAGAGGGCCGAGCGCTGCACCTCGAGGGGTGAAGGCACGT	2052
Db	2041	CAGCGTGTCAACTACGAGCGGGCGGGCGGCCGCCGCGCTCTGTTGGGCGCTGTGTGGG	2100
Oy	2053	CAGCGTGTCAACTACGAGCGGGCGGGCGGCCGCCGCGCTCTGTTGGGCGCTGTGTGGG	2112
Db	2101	CCTGGAGGATATCCACAGGGGCGTGGGCGACACTTCGTGCTGCTGTGTGGGCGCCAGAGACC	2160
Oy	2113	CCTGGAGGATATCCACAGGGGCGTGGGCGACACTTCGTGCTGCTGTGTGGGCGCCAGAGACC	2172
Db	2161	GCCCGCTAGCTGTACTTCTTCTCAAGGTGATGTGAGCGGGCGGTTGAGACACCATCCCCA	2220
Oy	2173	GCCCGCTAGCTGTACTTCTTCTCAAGGTGATGTGAGCGGGCGGTTGAGACACCATCCCCA	2232
Db	2221	GGACAGGCTCAAGGAGGTCAATCGCCAGACATCAAAACCCAGAAACAGTACTGCTGTCG	2280
Oy	2233	GGACAGGCTCAAGGAGGTCAATCGCCAGACATCAAAACCCAGAAACAGTACTGCTGTCG	2292
Db	2281	TGCGGATGCGTGGTCCAGAGAGCGCCGCATGGGGACGTCGCCAGAGCGCTTCAAGAGCA	2340
Oy	2293	TGCGGATGCGTGGTCCAGAGAGCGCCGCATGGGGACGTCGCCAGAGCGCTTCAAGAGCA	2352
Db	2341	CGTCTACCTTGCACACACCTCCAGCGCGTACATGACACAGTTCGTGGCTCACCTCAGCA	2400
Oy	2353	CGTCTACCTTGCACACACCTCCAGCGCGTACATGACACAGTTCGTGGCTCACCTCAGCA	2412
Db	2401	GACCAAGCCCGCTGAGGGATCCGTCGTATCGAGCAGAGCTCTCTGATGAGCGCAG	2460
Oy	2413	GACCAAGCCCGCTGAGGGATCCGTCGTATCGAGCAGAGCTCTCTGATGAGCGCAG	2472
Db	2461	CAGTGGCGCTCTGACACTCTTCTTAGCGTTCAATGTGCCACACGGCGGTGCGATACAGGG	2520
Oy	2473	CAGTGGCGCTCTGACACTCTTCTTAGCGTTCAATGTGCCACACGGCGGTGCGATACAGGG	2532
Db	2521	CAAGTCTACGTCACAGTGCAGAGGGAGTCCGCGAGGGCTCCATCTCTCACGCTCTGTG	2580
Oy	2533	CAAGTCTACGTCACAGTGCAGAGGGAGTCCGCGAGGGCTCCATCTCTCACGCTCTGTG	2592
Db	2581	CAGCGTGTGCTAGCGCGACATGAGAGACAAGCTGTTGCGGGGATTCGGCGGAGAGCGGCT	2640
Oy	2593	CAGCGTGTGCTAGCGCGCGACATGAGAGACAAGCTGTTGCGGGGATTCGGCGGAGAGCGGCT	2652
Db	2641	GCTCTCTGCGTTTGGTGGATATTTCTTGTGGTACACTCACTCACCCACGCGAANAAC	2700
Oy	2653	GCTCTCTGCGTTTGGTGGATATTTCTTGTGGTACACTCACTCACCCACGCGAANAAC	2712
Db	2701	CTTCCTCAGGACCGTGGTCCGAGGTGCGGAGTGCCTAGTATGGCTGCGGTGGAACCTTGCGAA	2760
Oy	2713	CTTCCTCAGGACCGTGGTCCGAGGTGCGGAGTGCCTAGTATGGCTGCGGTGGAACCTTGCGAA	2772
Db	2761	GACAGTGTGAACCTTCCCTTAAGACAGAGCGCCGTGGGTGACAGCGCTTTTGTTCACAT	2820
Oy	2773	GACAGTGTGAACCTTCCCTTAAGACAGAGCGCCGTGGGTGACAGCGCTTTTGTTCACAT	2832
Db	2821	GCGGCGCCAGCGCCATTTCCCTGTGTGGCGGCTGCTGTGATACCGGAGCCTTGAGAGT	2880

QY	2833	GC	CGCCGACCGAGGCTATTCCTCCCTGGTGGGGCCCTGCTGCTGATACC	CGGACCCCTGGAGGT	2892
Db	2881	GC	AAGGAGGACTACTCCAGCATATGCCGGACCTCCATCAAGGCAGCTCACCTTCAACGG		2940
QY	2893	GC	AAGGAGGACTACTCCAGCATATCCCGGACCTCCATCAAGGCAGCTCACCTTCAACGG		2952
Db	2941	CG	CTTCAAGGCTTGGAGGAACATGCGTCGCABAATCTTTTGGGGCTTTGGCGCTGAAGTG		3000
QY	2953	CG	CTTCAAGGCTTGGAGGAACATGCGTCGCABAATCTTTTGGGGCTTTGGCGCTGAAGTG		3012
Db	3001	TC	AAGCTGTTTCTGATTTGATTTGAGGTGAACGCCCTCCAGACGGTGTCCACCAATCTA		3066
QY	3013	TC	AAGCTGTTTCTGATTTGATTTGAGGTGAACGCCCTCCAGACGGTGTCCACCAATCTA		3072
Db	3061	CA	ATCTCTCTCTCTGTGAGGCGCTACAGAGTTTACAGCATGTGTGTGCAGCTCCATTTC		3120
QY	3073	CA	ATCTCTCTCTCTGTGAGGCGCTACAGAGTTTACAGCATGTGTGTGCAGCTCCATTTC		3122
Db	3121	TC	AGCAAGTTTGGAGAACCCACATTTTTCCTGCGCGTCATCTGTGACAGGGCTCCCT		3180
QY	3133	TC	AGCAAGTTTGGAGAACCCACATTTTTCCTGCGCGTCATCTGTGACAGGGCTCCCT		3192
Db	3181	CT	GTAATCCATCTCTGAAACCCAAAGACCGAGGATGTGCTTGGGGGCCAAGGGCGCCG		3240
QY	3193	CT	GTAATCCATCTCTGAAACCCAAAGACCGAGGATGTGCTTGGGGGCCAAGGGCGCCG		3252
Db	3241	CG	GGCCCTCTCCCTCCGAGGCGCGTGGAGTGGGCTGTGCCACAAAGATTCTGTCTCAAGCT		3300
QY	3253	CG	GGCCCTCTCCCTCCGAGGCGCGTGGAGTGGGCTGTGTGCCACAAAGATTCTGTCTCAAGCT		3312
Db	3301	GACT	CGACACCGTGTGCACCTTACGTGCCACTCTCTGGGGTCTACTCAGGACAGCCACAGACGA		3360
QY	3313	GACT	CGACACCGTGTGCACCTTACGTGCCACTCTCTGGGGTCTACTCAGGACAGCCACAGACGA		3372
Db	3361	GC	TAGTGGGAACCTCCCGGGGACGACGCTGACTGCTTGGAGGGCCGACGCCAACCCGGC		3420
QY	3373	GC	TAGTGGGAACCTCCCGGGGACGACGCTGACTGCTTGGAGGGCCGACGCCAACCCGGC		3432
Db	3421	ACT	GCCTCAGACTTCAAGACATCTGTGAGATGATGGCCACCCGCCACAGCCAGGACCGGA		3480
QY	3433	ACT	GCCTCAGACTTCAAGACATCTGTGAGATGATGGCCACCCGCCACAGCCAGGACCGGA		3492
Db	3481	GAG	CAGACACCGAGGCCCTGTACGCGCGGGCTCTACGTCCAGGAGGAGGAGGGCGGCC		3540
QY	3493	GAG	CAGACACACCGAGGCCCTGTACGCGCGGGCTCTACGTCCAGGAGGAGGAGGGCGGCC		3552
Db	3541	CAC	ACCAGGCGCCGACACCGTGGGAGTCTGAGGAGCTGAGATGATGTTTGGCCGAGGCTG		3600
QY	3553	CAC	ACCAGGCGCCGACACCGTGGGAGTCTGAGGAGCTGAGATGATGTTTGGCCGAGGCTG		3612
Db	3601	CAT	GTCCGGGTGAAGGTGATGTTCCGGGTGAGGCTTGAGGAGTGTCCAGGCAAGGGCT		3660
QY	3613	CAT	GTCCGGGTGGAAGGTGATGTTCCGGGTGAGGCTTGAGGAGTGTCCAGGCAAGGGCT		3672
Db	3661	GAG	TGTCCAGACACCTGCGCGTTCCTCACTTCCCAAGGCTGGCGCTCGGCTCCACCCCA		3720
QY	3673	GAG	TGTCCAGACACCTGCGCGTTCCTCACTTCCCAAGGCTGGCGCTCGGCTCCACCCCA		3732
Db	3721	GGG	CCAGCTTTTCTCTACACGAGGAGCCCGGCTTCACATCCCAATAGAAATGATCATCC		3780
QY	3733	GGG	CCAGCTTTTCTCTACACGAGGAGCCCGGCTTCACATCCCAATAGAAATGATCATCC		3792
Db	3781	CC	AGAT 3786		
QY	3793	CC	AGAT 3798		

D	b	1621	GACCCAGGGGTTGGCTGTTTCCGGCCGAGAGCACCTCTGCTGAGAGATCTCTGGC	1680
Q	y	1633	GAGCCCAAGGGGTTGGCTGTTTCCGGCCGAGAGCACCTCTGCTGAGAGATCTCTGGC	1692
D	b	1681	CAAGTTCCTGCACTGCTGATGATGATGTCACGTCGACAGCTGCACAGCTCTTCTTTA	1740
Q	y	1693	CAAGTTCCTGCACTGCTGATGATGATGTCACGTCGACAGCTGCACAGCTCTTCTTTA	1752
D	b	1741	TGTCACGGAGACACAGCTTTCAAAAGAACAGGCTCTTTTCTACGGAGAGTGTCTGAG	1800
Q	y	1753	TGTCACGGAGACACAGCTTTCAAAAGAACAGGCTCTTTTCTACGGAGAGTGTCTGAG	1812
D	b	1801	CAAGTTCGAAAGCTTTGATTCAGACAGCACTTGAAGAGGGTGCACGTCGGGAGCTTC	1860
Q	y	1813	CAAGTTCGAAAGCTTTGATTCAGACAGCACTTGAAGAGGGTGCACGTCGGGAGCTTC	1872
D	b	1861	GGAAGCAGAGGTCAGGCGAGCATCGGGAAGCCAGCCCGGCTCTGACGTCACACTCG	1920
Q	y	1873	GGAAGCAGAGGTCAGGCGAGCATCGGGAAGCCAGCCCGGCTCTGACGTCACACTCG	1932
D	b	1921	CTTATCCCCAAGCTCTACGGGGCTGGGGCGATTGGAACTAGACACTACGTCGGGAGC	1980
Q	y	1933	CTTATCCCCAAGCTCTACGGGGCTGGGGCGATTGGAACTAGACACTACGTCGGGAGC	1992
D	b	1981	CAGAACGTTCCGCGAGAGAAAAGAGGGCCGACGCTCTACCTCGAGGGTGAAGGCACTTT	2040
Q	y	1993	CAGAACGTTCCGCGAGAGAAAAGAGGGCCGACGCTCTACCTCGAGGGTGAAGGCACTTT	2052
D	b	2041	CAGGTCCTCAACTACGAGAGCGGGCGGGCGCCCGGCTCTCTGGGCGCTCTGTCTGG	2100
Q	y	2053	CAGGTCCTCAACTACGAGAGCGGGCGGGCGCCCGGCTCTCTGGGCGCTCTGTCTGG	2112
D	b	2101	CCTGAGAGATATCCACAGGGCTCTGGCGCACTTCGTCGCTGTGCGGGCCACAGACCC	2160
Q	y	2113	CCTGAGAGATATCCACAGGGCTCTGGCGCACTTCGTCGCTGTGCGGGCCACAGACCC	2172
D	b	2161	GCCGCTGAGCTGACTTCTTGTCAAGGTGGATGTGACGGGCGCGTACGACACATCCCCA	2220
Q	y	2173	GCCGCTGAGCTGACTTCTTGTCAAGGTGGATGTGAGGGGCGCGTACGACACATCCCCA	2232
D	b	2221	GGAAGGCTCAGGAGGTCATGCGCAGACATCAACAACCCAGAACAGTACTGCTGTCG	2280
Q	y	2233	GGAAGGCTCAGGAGGTCATGCGCAGACATCAACAACCCAGAACAGTACTGCTGTCG	2292
D	b	2281	TCGGTATGCGGTGCTCCAGAAAGCCGCCCATGSGGCACTCCGCAAGGCGCTTCAGAGCCA	2340
Q	y	2293	TCGGTATGCGGTGCTCCAGAAAGCCGCCCATGSGGCACTCCGCAAGGCGCTTCAGAGCCA	2352
D	b	2341	CGTCTACCTTGACACACCTCCAGCGCTACATGCGACAGTTCGTTGCGTCACTGCAAGA	2400
Q	y	2353	CGTCTACCTTGACACACCTCCAGCGCTACATGCGACAGTTCGTTGCGTCACTGCAAGA	2412
D	b	2401	GACCAGCCGCGTGAAGGATCCGTCGTCATCGAGCAGACCTCTCCCTGAATGAGAGCAG	2460
Q	y	2413	GACCAGCCGCGTGAAGGATCCGTCGTCATCGAGCAGACCTCTCCCTGAATGAGAGCAG	2472
D	b	2461	CAGTGGCTCTTGACAGCTCTTCTACGCTTCATGTCCACACGCCGCTGCGCATGAGGG	2520
Q	y	2473	CAGTGGCTCTTGACAGCTCTTCTACGCTTCATGTCCACACGCCGCTGCGCATGAGGG	2532
D	b	2521	CAAGTCTACGTCACAGGCCAGGGAATCCGCGAGGGCTCAATCTCTCCAGGCTCTCTG	2580
Q	y	2533	CAAGTCTACGTCACAGGCCAGGGAATCCGCGAGGGCTCAATCTCTCTCCAGGCTCTCTG	2592
D	b	2581	CAGGCTGTGCTACGGCGACATGAGAGAACAGCTGTTTGGGGGATTCGCGGGGAGGGCT	2640
Q	y	2593	CAGGCTGTGCTACGGCGACATGAGAGAACAGCTGTTTGGGGGATTCGCGGGGAGGGCT	2652
D	b	2641	GCCTCTCGGTTTGGTGAATATTTCTTGTGTGGTACACTCACTCACCCACGCAAAAC	2700
Q	y	2653	GCCTCTCGGTTTGGTGAATATTTCTTGTGTGGTACACTCACTCACCCACGCAAAAC	2712

D	2701	CTCCTCAGACCCCTGCTCCGAGCTCCTCCATGATATGCTGCGGTGACCTGCGGAA	2760
O	2713	CTTCTCAGGACCCCTGCTCCGAGCTCCTCCTAGTATGCTGCGGTGAACTTGGCGAA	2772
D	2761	GACAGTGTGAACCTCCCTCTGTATGAAGACGAGCCCTGGGTGGACAGCTTTTGTTCAGAT	2820
O	2773	GACAGTGTGAACCTCCCTCTGTATGAAGACGAGCCCTGGGTGGACAGCTTTTGTTCAGAT	2832
D	2821	GCGGGCCACGAGCCCTATTCCTCTGGTGGGCTGCTGCTGGATACCGGACCTGTGAGAT	2880
O	2833	GCGGGCCACGAGCCCTATTCCTCTGGTGGGCTGCTGCTGGATACCGGACCTGTGAGAT	2892
D	2881	GCAGAGGACACTCCAGCTATGCCGGACCTCCATTCAGAGACACTCCACTTCAACCG	2940
O	2893	GCAGAGGACACTCCAGCTATGCCGGACCTCCATTCAGAGACACTCCACTTCAACCG	2952
D	2941	CGGCTTAAGGCTGGGAGGAACTGCTGCGCAACTCTTTGGGGCTTTGGGGCTGAAGTG	3000
O	2953	CGGCTTAAGGCTGGGAGGAACTGCTGCGCAACTCTTTGGGGCTTTGGGGCTGAAGTG	3012
D	3001	TCACAGCCTGTTTCTGGATTTGGAGGTGAACAGCCCTCAAGAGCGGTGTCACCAATCTA	3060
O	3013	TCACAGCCTGTTTCTGGATTTGGAGGTGAACAGCCCTCAAGAGCGGTGTCACCAATCTA	3072
D	3061	CAAGATCCTCCTGCTGCGAGCGTACAGGTTTCAGCATGTGTGCTGACGCTCCCATTTCA	3120
O	3073	CAAGATCCTCCTGCTGCGAGCGTACAGGTTTCAGCATGTGTGCTGACGCTCCCATTTCA	3132
D	3121	TCACAGAGTTTGGAGAACCCCACTTTTCTGCGGCTCATCTGTACACAGGCTCCT	3180
O	3133	TCACAGAGTTTGGAGAACCCCACTTTTCTGCGGCTCATCTGTGTACACAGGCTCCTCT	3192
D	3181	CTGTACTCCATCCTGTGAAGCCCAAGAACCCAGAGATGTGCTGGGGGGCCAGAGGCGCG	3240
O	3193	CTGTACTCCATCCTGTGAAGCCCAAGAACCCAGAGATGTGCTGGGGGGCCAGAGGCGCG	3252
D	3241	CGGCCCCCTGCCCCCGAGGCGGTGCTGTCACCAAGCATTTCTGTCTAAGCT	3300
O	3253	CGGCCCCCTGCCCCCGAGGCGGTGCTGTCACCAAGCATTTCTGTCTAAGCT	3312
D	3301	GACTCGACACCGTGTACCTACCTAGCTGCTCCTCTGGGGGTACACAGAACGCCAGAGCA	3360
O	3313	GACTCGACACCGTGTACCTACCTAGCTGCTCCTCTGGGGGTACCTAGAGAACGCCAGAGCA	3372
D	3361	GCTGAGTGGGAAGCTCCCGGGGACGAGCTGACTGCTTGAAGGCGCGAGCCAAACCCGC	3420
O	3373	GCTGAGTGGGAAGCTCCCGGGGACGAGCTGACTGCTTGAAGGCGCGAGCCAAACCCGC	3432
D	3421	ACTGCCCCAGACTTAAGAACCACTCTGTGACGTATGGGCACCCCGCCACAGCCAGGCGA	3480
O	3433	ACTGCCCCAGACTTAAGAACCACTCTGTGACGTATGGGCACCCCGCCACAGCCAGGCGA	3492
D	3481	GAGCAGACACACAGCCCTGTACGCGCGGCTACGCTACGTTCCAGGAGAGGAGGGCGGC	3540
O	3493	GAGCAGACACACAGCCCTGTACGCGCGGCTACGCTACGTTCCAGGAGAGGAGGGCGGC	3552
D	3541	CACACCCAGGCCCCGACCGCTGGGAGTCTGAGGCGCTGAGTGAAGTTTTGGCCAGAGCCTG	3600
O	3553	CACACCCAGGCCCCGACCGCTGGGAGTCTGAGGCGCTGAGTGAAGTTTTGGCCAGAGCCTG	3612
D	3601	CATGTCGGGTGAAGGCTGAGTGTCCGGGTGAGGCTGAGGAGTGTCCACCCAAAGGCT	3660
O	3613	CATGTCGGGTGAAGGCTGAGTGTCCGGGTGAGGCTGAGGAGTGTCCACCCAAAGGCT	3672
D	3661	GAGTGTCCAGACACCTGCGCTTTCATCTTCCACAGAGCTGGCGCTGCCACCCCA	3720
O	3673	GAGTGTCCAGACACCTGCGCTTTCATCTTCCACAGAGCTGGCGCTGCCACCCCA	3732
D	3721	GGGCGACCTTTCTCACAAGAGGCCCCGGCTTCCACTCCCAACAGGAATATGTCATTC	3780
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QY 2953 CGGCTTCAGAGCTGGGAGAGACATCGTCGCAACTCTTTGGGGTCTTGGCGCTCAAGTG 3012
Db 3001 TCACAGCGCTGTTTGGATTTGGATTTGAGTGAAGAGCTCCAGAGCGGTGTGCACCAATATCTA 3060
QY 3013 TCACAGCGCTGTTTGGATTTGGATTTGAGTGAAGAGCTCCAGAGCGGTGTGCACCAATATCTA 3072
Db 3061 CAGATCTCTGCTGTGTCAGAGCGGTGTGCACCAATATGTCGTGTCAGAGCTCCATTCA 3120
QY 3073 CAGATCTCTGCTGTGTCAGAGCGGTGTGCACCAATATGTCGTGTCAGAGCTCCATTCA 3132
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QY 3133 TCAGCAATTTGGAGAAACCCACATTTTCTGCGCTCATCTGTACAGCGGCTCCCT 3192
Db 3181 CTGCTACTCCATCTGTAAGAGCCAAAGACGAGGATGTGCTGGGGGCCAAGGGCGCGC 3240
QY 3193 CTGCTACTCCATCTGTAAGAGCCAAAGACGAGGATGTGCTGGGGGCCAAGGGCGCGC 3252
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QY 3253 CGGCGCTCTGCTGCTGCTCCGAGCGCGTGTGCTGTGCTGCTGCTGCTGCTGCTGCTGCT 3312
Db 3301 GACTGTGACACCGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3360
QY 3313 GACTGTGACACCGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3372
Db 3361 GCTGAGTGGAGAGCTGCGGGGAGAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3420
QY 3373 GCTGAGTGGAGAGCTGCGGGGAGAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3432
Db 3421 ACTGCGCTTCAGACTTCAGAGCCATCTGAGACTGATGAGCCAGCCGCGCCAGCGCGCA 3480
QY 3433 ACTGCGCTTCAGACTTCAGAGCCATCTGAGACTGATGAGCCAGCCGCGCCAGCGCGCA 3492
Db 3481 GAGCAGACACGAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3540
QY 3493 GAGCAGACACGAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3552
Db 3541 CACACCCAGGCGCGGAGCGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAG 3600
QY 3553 CACACCCAGGCGCGGAGCGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAG 3612
Db 3601 CATGTCGCGCTGAGAGCTGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3660
QY 3613 CATGTCGCGCTGAGAGCTGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3672
Db 3661 GAGTGTCCAGACACCTGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3720
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Db 3721 GGGCAGGCTTTTCTCACCAGGAGCGCGCTTCCATCCCAATAGGAATAGTCATCC 3780
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RESULT 8
ID US-08-912-951-1 STANDARD; DNA; UNC; 4015 BP.
AC xxxxxx
DT

CC Sequence 1, Application US/08912951
CC Sequence 1, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Langer, Joachim
CC APPLICANT: Nakamura, Toru

CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hatley, Calvin H.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4015 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: CDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 56..3454
CC OTHER INFORMATION: /product="hTR"
CC OTHER INFORMATION: /note="human telomerase reverse
CC OTHER INFORMATION: transcriptase (hTR) catalytic protein
CC OTHER INFORMATION: component"
CC SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match 99.6%; Score 3784; DB 44; Length 4015;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 1 GCAGCGCTGCGTCTGCTGCGCAGCTGGAGAGCCCTGGCGCCGCGCAGCGCATGCC 60
QY 13 GCAGCGCTGCGTCTGCTGCGCAGCTGGAGAGCCCTGGCGCCGCGCAGCGCATGCC 72

[illegible]

Db	1141	GAAATCTTTTGGGTTTCAGAGCCCTGGATGCGAGAGCACTCCCGACAGTTGGCCCCGCT	1200
Oy	1153	GACCAATCTTTCTGGGTTTCCAGGCCCTTGATGTCAGAGCACTCCCGACAGTTGGCCCCGCT	1212
Db	1201	GCCCCAGGCGTACTGGAATATGCGGCCCTCTGTTCTTGAGAGCTGCTTTGGGAACCAAGCGCA	1260
Oy	1213	GCCCCAGGCGTACTGGAATATGCGGCCCTCTGTTCTTGAGAGCTGCTTTGGGAACCAAGCGCA	1272
Db	1261	GTGCCCTTACGGGGGTGCTCTTCAGAGCACTGCCGCTGGAGCTGGGGTACCCCAAGC	1320
Oy	1273	GTGCCCTTACGGGGGTGCTCTTCAGAGCACTGCCGCTGGAGCTGGGGTACCCCAAGC	1332
Db	1321	AGCCGCTCTGTGCGCCCGGAGAAACCCCAAGGCTCTGTGGCGGCCCCCGAGAGAGAGA	1380
Oy	1333	AGCCGCTCTGTGCGCCCGGAGAAACCCCAAGGCTCTGTGGCGGCCCCCGAGAGAGAGA	1392
Db	1381	CACAGACCCCGCTGCGCTGTGTGCACTGCTCCGCGACACAGACCCCTGGCAGGTGA	1440
Oy	1393	CACAGACCCCGCTGCGCTGTGTGCACTGCTCCGCGACACAGACCCCTGGCAGGTGA	1452
Db	1441	GCGGCTGTGGGGGCGTGCCTGCGCGCGGCTGGTGGCCCCCAGGCGCTGTGGGGTCCAGGCA	1500
Oy	1453	GCGGCTGTGGGGGCGTGCCTGCGCGCGGCTGGTGGCCCCCAGGCGCTGTGGGGTCCAGGCA	1512
Db	1501	CAACGAAAGCGCGCTTCCCTCAGAGAACCCAGAAAGTTACTTCTCCGAGGGAGACATGCCAA	1560
Oy	1513	CAACGAAAGCGCGCTTCCCTCAGAGAACCCAGAAAGTTACTTCTCCGAGGGAGACATGCCAA	1572
Db	1561	GCTCTCGCTGCAGAGAGCTGACGTGGAAATAGAGCTGGGGAGCTCGCTTGGCTGCGAG	1620
Oy	1573	GCTCTCGCTGCAGAGAGCTGACGTGGAAATAGAGCTGGGGAGCTCGCTTGGCTGCGAG	1632
Db	1621	GAGCCAGAGGGGTGGCTGTGTTCCGCGCGCAGAGACCGTGTGCTGAGAGATCTTGGC	1680
Oy	1633	GAGCCAGAGGGGTGGCTGTGTTCCGCGCGCAGAGACCGTGTGCTGAGAGATCTTGGC	1692
Db	1681	CAAGTTCCTGCATGCGTGTGATGATGTGTATGCTGTGAGCTGTCTCAGGTCTTTCTTTTA	1740
Oy	1693	CAAGTTCCTGCATGCGTGTGATGATGTGTATGCTGTGAGCTGTCTCAGGTCTTTCTTTTA	1752
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Oy	1753	TGTCAAGGAGACCAAGTTTCAAAAGAACAGGCTCTTTTCAACGGGAAGAGTGTGGAG	1812
Db	1801	CAAGTTGCAAAAGCATTTGGAATCAGACACACTTGAAGAAGGTGACGTGCGGAGCTGTC	1860
Oy	1813	CAAGTTGCAAAAGCATTTGGAATCAGACACACTTGAAGAAGGTGACGTGCGGAGCTGTC	1872
Db	1861	GGAACCAAGAGTCAGGCAAGCATCGGGAAGCCAGGCGCCCTGCTGAGCTCCAGACTCG	1920
Oy	1873	GGAACCAAGAGTCAGGCAAGCATCGGGAAGCCAGGCGCCCTGCTGAGCTCCAGACTCG	1932
Db	1921	CTTCAATCCCAAGCCTGACGGGCTCGGCGCATTTGTGAACATGACATAGTGTGGAGAC	1980
Oy	1933	CTTCAATCCCAAGCCTGACGGGCTCGGCGCATTTGTGAACATGACATAGTGTGGAGAC	1992
Db	1981	CAGAAAGTTCCGCAAGAAAAAGAGGGCCGAGCGTCACTCACTCGAGGCTGAAGGCACTGTT	2040
Oy	1993	CAGAAAGTTCCGCAAGAAAAAGAGGGCCGAGCGTCACTCACTCGAGGCTGAAGGCACTGTT	2052
Db	2041	CAGCGTGTCAACTGAGAGCGGGGCGCGGCGCCCGGCTCTGAGGCGGCTGTGCTGGG	2100
Oy	2053	CAGCGTGTCAACTGAGAGCGGGGCGCGGCGCCCGGCTCTGAGGCGGCTGTGCTGGG	2112
Db	2101	CTGTGACATATCAACAGGGCCTTGCGCACCTTCTGTGTCGTGTGCGGGCCACAGACCC	2160
Oy	2113	CTGTGACATATCAACAGGGCCTTGCGCACCTTCTGTGTCGTGTGCGGGCCACAGACCC	2172
Db	2161	GCGCGCTGAGCTGTACTTTGTCAAGGTGATGTGACGGGCGGTACAGACCATCTCCCA	2220
Oy	2173	GCGCGCTGAGCTGTACTTTGTCAAGGTGATGTGACGGGCGGTACAGACCATCTCCCA	2232
Db	2221	GGACAGGCTCAAGAGAGTCAATGCCAGATCATCAACCCCGAAGCACAGTACTGCTGGG	2280

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 Db 2281 TCGATATGCGGTGTCAGAGAGCCGCCATGAGGACGTCCGCAAGGCTTCAAGAGCA 2340
 Qy 2293 TGGATATGCGGTGTCAGAGAGCCGCCATGAGGACGTCCGCAAGGCTTCAAGAGCA 2352
 Db 2341 CGTCTTACCTTGACAGACCTCCAGCGTACATGCGACAGTTGTTGGCTACCTGAGGA 2400
 Qy 2353 CCTCTTACCTTGACAGACCTCCAGCGTACATGCGACAGTTGTTGGCTACCTGAGGA 2412
 Db 2401 GACGAGCCCGGAGAGGATGCGGTGTCATGCGAGAGTCTCTGTAATGAGGCGAG 2460
 Qy 2413 GACGAGCCCGGAGAGGATGCGGTGTCATGCGAGAGTCTCTGTAATGAGGCGAG 2472
 Db 2461 CAGTGGCTCTTTCAGAGCTTCTTACGCTTCAATGTCACACAGCGCGTGGCATCAGGG 2520
 Qy 2473 CAGTGGCTCTTTCAGAGCTTCTTACGCTTCAATGTCACACAGCGCGTGGCATCAGGG 2532
 Db 2521 CAGTCTTACGTCATGTCGAGGAGATCCCGAGGCGTCCATCTCTCCAGCTGCTCTG 2580
 Qy 2533 CAGTCTTACGTCATGTCGAGGAGATCCCGAGGCGTCCATCTCTCCAGCTGCTCTG 2592
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 Db 2641 GCTCTGCGTTGGTGGATGATTTCTTGTGTGACACCTCACCTGACCGCGAGAAAC 2700
 Qy 2653 GCTCTGCGTTGGTGGATGATTTCTTGTGTGACACCTCACCTGACCGCGAGAAAC 2712
 Db 2701 CTCTCTCAGAGACCTGCTGCGAGGTCCTCTGATAGTGGTGGTGAACCTTGGGGA 2760
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 Db 2941 GCGCTTCAAGGCTGGAGAGAAATGCGTGCAGAACTCTTGGGGGCTTGGGGTGAAGTG 3000
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 Db 3001 TCACAGCTGTTTCTGAGATTGAGGTGAGACAGCTCCAGAGCGTGTGACCAACATCTA 3060
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RESULT 9
 ID PCT-US99-07097-1 STANDARD; DNA; UNC; 4015 BP.
 AC xxxxxx
 DT Sequence 1, Application PC/TUS9907097
 CC Sequence 1, Application PC/TUS9907097
 CC GENERAL INFORMATION:
 CC APPLICANT: Morin, Gregg B.
 CC APPLICANT: Geron Corporation
 CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit Variants
 CC FILE REFERENCE: 015389-00310PC
 CC CURRENT APPLICATION NUMBER: PCT/US99/07097
 CC CURRENT FILING DATE: 1999-03-31
 CC EARLIER APPLICATION NUMBER: US 09/052,864
 CC EARLIER FILING DATE: 1998-03-31
 CC EARLIER APPLICATION NUMBER: US 09/128,354
 CC EARLIER FILING DATE: 1998-08-03
 CC NUMBER OF SEQ ID NOS: 21
 CC SOFTWARE: PatentIn Ver. 2.0
 CC SEQ ID NO 1
 CC LENGTH: 4015
 CC TYPE: DNA
 CC ORGANISM: Homo sapiens
 CC FEATURE:
 CC NAME/KEY: CDS
 CC LOCATION: (56) ..(3454)
 CC OTHER INFORMATION: human telomerase reverse transcriptase (hTERT) cDNA
 SQ SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match 99.6%; Score 3784; DB 57; Length 4015;
 Best local similarity 100.0%; Pred. No. 0.00e+00;
 Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 1 GCAGCGCTGCTCTCTGCGACGAGTGGAGAGCCCTGGCCCGGCGCAACCCCGGATGCC 50
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D 2281 TCAGTATGCGCTGCTCCAGAGAGCGCCCATGGGACGTCCGCAAGGCTTCAAGAGCA 2340
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D 2401 GACCAAGCCCGGTGAGGATGCGTGTATGAGAGAGTCTCTCTGAATGAGCCAG 2450
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D 2701 CTTCCTCAGAGACCTGAGTCCAGAGGATGCTCTGAGTATGCTGCGGTAACCTTGCGGA 2760
D 2713 CTTCCTCAGAGACCTGAGTCCAGAGGATGCTCTGAGTATGCTGCGGTAACCTTGCGGA 2772
D 2761 GACAGTGTGAACCTCCCTGTAGAAGACGAGCCCTGGGTGGCAAGGCTTGTTCAGAT 2820
D 2773 GACAGTGTGAACCTCCCTGTAGAAGACGAGCCCTGGGTGGCAAGGCTTGTTCAGAT 2832
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D 3013 TCAGAGGCTGTTTGTGATTTGCAAGGTGAACAGCTCCAGACGCTGTCACCAACATCTA 3072
D 3061 CAAGATCCTCTGCTGTCAGGCGTACAGGTTCACGATGTGCTGACAGCTCCATTTCA 3120
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D 3193 CTGCTACTCCATCTCTGAAGAGCAGAGAGGATGTCGCTGGGGGCGAAGGGCGCGC 3252
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RESULT 10
ID US-09-128-354-1 STANDARD; DNA; UNC; 4015 BP.
AC xxxxxx
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DE Sequence 1, Application US/09128354
CC Sequence 1, Application US/09128354
CC GENERAL INFORMATION:
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Geron Corporation
CC TITLE OR INVENTION: Human Telomerase Catalytic Subunit Variants
CC FILE REFERENCE: 015389-003310US
CC CURRENT APPLICATION NUMBER: US/09/128,354
CC EARLIER FILING DATE: 1998-08-03
CC EARLIER FILING DATE: US 08/851,843
CC EARLIER FILING DATE: 1997-05-06
CC EARLIER APPLICATION NUMBER: US 08/854,050
CC EARLIER FILING DATE: 1997-05-09
CC EARLIER APPLICATION NUMBER: US 08/911,312
CC EARLIER FILING DATE: 1997-08-14
CC EARLIER APPLICATION NUMBER: US 08/912,951
CC EARLIER FILING DATE: 1997-08-14
CC EARLIER APPLICATION NUMBER: US 08/915,503
CC EARLIER FILING DATE: 1997-08-14
CC EARLIER APPLICATION NUMBER: WO PCT/US97/17618
CC EARLIER FILING DATE: 1997-10-01
CC EARLIER APPLICATION NUMBER: WO PCT/US97/17885
CC EARLIER FILING DATE: 1997-10-01
CC EARLIER APPLICATION NUMBER: US 08/974,549
CC EARLIER FILING DATE: 1997-11-19
CC EARLIER APPLICATION NUMBER: US 08/974,584
CC EARLIER FILING DATE: 1997-11-19
CC EARLIER APPLICATION NUMBER: US 09/052,864
CC EARLIER FILING DATE: 1998-03-31
CC NUMBER OF SEQ ID NOS: 21
CC SOFTWARE: Patent Ver. 2.0
CC SEQ ID NO 1
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CC TYPE: DNA
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QY 3193 CTGCTACTTCATCTGAAAGCCAGAAACGACAGGATGTGTGCTGGGGGCCAAGGGCGCGC 3252
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ID US-09-052-864-1 STANDARD; DNA; UNC; 4015 BP.
AC xxxxxx
DT Sequence 1, Application US/09052864
CC Sequence 1, Application US/09052864
CC GENERAL INFORMATION:
CC APPLICANT: Morin, Gregg B.
CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit
CC TITLE OF INVENTION: Variants
CC NUMBER OF SEQUENCES: 18
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/09/052,864
CC FILING DATE: 31-MAR-1997

CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/974,549
CC FILING DATE: 19-NOV-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/974,584
CC FILING DATE: 19-NOV-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-003300US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4015 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 56..3454
CC OTHER INFORMATION: /product= "human telomerase reverse
CC OTHER INFORMATION: transcriptase (hTRT)"
CC SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.
SQ
Query Match 99.68; Score 3784; DB 50; Length 4015;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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D	b	2161	GCCCCTGAGAGCTGACTTCTTCAAGGTGATGAGAGGGCGGCTGACACACATCCCCA	2220
O	y	2173	GCCCCTGAGAGCTGACTTCTTCAAGGTGATGAGAGGGCGGCTGACACACATCCCCA	2232
D	b	2221	GGACAGGCTCACGGAGGTCATCGCCAGCATCATCAAACCCAGAACAGTACTGCTGCG	2280
O	y	2233	GGACAGGCTCACGGAGGTCATCGCCAGCATCATCAAACCCAGAACAGTACTGCTGCG	2292
D	b	2281	TCGGATATGCGGTGTCCAGAAAGGCCCCATGGGCACGTCCGCAAGGGCTTCMAAGGCA	2340
O	y	2293	TCGGATATGCGGTGTCCAGAAAGGCCCCATGGGCACGTCCGCAAGGGCTTCMAAGGCA	2352
D	b	2341	CGTCTACACTTGACAGACCTTCCAGCGCTACATCGAGACAGTTCGAGGCTCACTGACAGGA	2400
O	y	2353	CGTCTACACTTGACAGACCTTCCAGCGCTACATCGAGACAGTTCGAGGCTCACTGACAGGA	2412
D	b	2401	GACCAGCCCGCTGAGGGATCCGCTGCTCATCGACAGAGACTCTCTCTGAATGAGGGCAG	2460
O	y	2413	GACCAGCCCGCTGAGGGATCCGCTGCTCATCGAGACAGACTCTCTCTGAATGAGGGCAG	2472
D	b	2461	CAGTGGCCTCTTGACAGCTCTTCTACGCTTCATGTBCACACAGCCGTGCGCATCAGGGG	2520
O	y	2473	CAGTGGCCTCTTGACAGCTCTTCTCTACGCTTCATGTBTGCACACAGCCGTGCGCATCAGGGG	2532
D	b	2521	CAAGTCCAGTCCAGTGCAGGAGGGAGATCCCGGACGGGCTCAATCTCTCCACAGCTGCTG	2580
O	y	2533	CAAGTCCAGTCCAGTGCAGGAGGGAGATCCCGGACGGGCTCAATCTCTCCACAGCTGCTG	2592
D	b	2581	CAGCCTGTGCTACGCGCACATGAGAGACAAGCTGTTTGGGSGGATTCGGCGGAGAGGCT	2640
O	y	2593	CAGCCTGTGCTACGCGCACATGAGAGACAAGCTGTTTGGGSGGATTCGGCGGAGAGGCT	2652
D	b	2641	GCTCCTGCGTTTGGTGGATGATTTCTTGTGTGACACCTCACTACCCACGCGAAAA	2700
O	y	2653	GCTCCTGCGTTTGGTGGATGATTTCTTGTGTGACACCTCACTACCCACGCGAAAA	2712
D	b	2701	CTTCTCTAGAGACCTTGCTCCGAGGTCTCCCTAGATATGGCTCCGAGTGAACCTTGGCGAA	2760
O	y	2713	CTTCTCTAGAGACCTTGCTCCGAGGTCTCCCTAGATATGGCTCCGAGTGAACCTTGGCGAA	2772
D	b	2761	GACAGTGGTGAACCTTCCCTTAGAAMACAGAGGGCCCTGGGTGCGACAGGCTTTTGTTCACAT	2820

|||||
QY 2773 GACAGTGGTGAACCTCCCTGTAGAAAGCAGAGCCCTGGGGGACGCTTTTGTAGAT 2832
DB 2821 GCGGGCCACAGGCTATTCCTCTGTGTGCGGCTGCTGTGATACCGGAGCCCTGGAGT 2880
QY 2833 GCGGGCCACAGGCTATTCCTCTGTGTGCGGCTGCTGTGATACCGGAGCCCTGGAGT 2892
DB 2881 GCAGAGGCTACTCCAGCTATGCGCGGACCTCCATCAGAGCCAGTCTACCTTCAACG 2940
QY 2893 GCAGAGGCTACTCCAGCTATGCGCGGACCTCCATCAGAGCCAGTCTACCTTCAACG 2952
DB 2941 GCGGCTCAAGGCTGGGAGGAGAACATGGGTGCGCAACTTTGGGGTCTTGGGGTGAAGT 3000
QY 2953 GCGGCTCAAGGCTGGGAGGAGAACATGGGTGCGCAACTTTGGGGTCTTGGGGTGAAGT 3012
DB 3001 TCACAGCTGTTTCTGATTTGAGGTGTAACAGCTCCAGAGCGGTGTGACCAACATCTA 3060
QY 3013 TCACAGCTGTTTCTGATTTGAGGTGTAACAGCTCCAGAGCGGTGTGACCAACATCTA 3072
DB 3061 CAAGATCTCTCTGCTCAGGCGGTACAGGTTTCAAGCATGTGTCTGCAAGTCCATTTCA 3120
QY 3073 CAAGATCTCTCTGCTCAGGCGGTACAGGTTTCAAGCATGTGTCTGCAAGTCCATTTCA 3132
DB 3121 TCACAGTGTGGAAGACCCCAATTTTCTGGGGGTCTGACAGCGGCTCCCT 3180
QY 3133 TCACAGTGTGGAAGACCCCAATTTTCTGGGGGTCTGACAGCGGCTCCCT 3192
DB 3181 CTGCTACTCTCTCTGAAAGCCAAAGACGAGGATGCTGCTGGGGCCAAAGGCGCCG 3240
QY 3193 CTGCTACTCTCTCTGAAAGCCAAAGACGAGGATGCTGCTGGGGCCAAAGGCGCCG 3252
DB 3241 CCGGCTCTGCTCTCGAGGCGCTGCAAGTGTGTGCTGCAAGCATTTCTGCTCAAGT 3300
QY 3253 CCGGCTCTGCTCTCGAGGCGCTGCAAGTGTGTGCTGCAAGCATTTCTGCTCAAGT 3312
DB 3301 GACTCGACACCGGTGACCTACCTGTCACCTCTGGGGTCACTAGGACAGCCAGACGCA 3360
QY 3313 GACTCGACACCGGTGACCTACCTGTCACCTCTGGGGTCACTAGGACAGCCAGACGCA 3372
DB 3361 GCTGAGTGGAAAGCTCCCGGGAGCAGAGCTGACTGCTGGAGGCGGCAACCCGCG 3420
QY 3373 GCTGAGTGGAAAGCTCCCGGGAGCAGAGCTGACTGCTGGAGGCGGCAACCCGCG 3432
DB 3421 ACTGCGCTCAGACTTCAAGACCTCTGACTATGAGCCACCGCCACAGCCAGCCGA 3480
QY 3433 ACTGCGCTCAGACTTCAAGACCTCTGACTATGAGCCACCGCCACAGCCAGCCGA 3492
DB 3481 GAGCAGACACAGCAGCCTGTGACGCGGGCTCTACGTCACAGGAGGAGGAGGCGGC 3540
QY 3493 GAGCAGACACAGCAGCCTGTGACGCGGGCTCTACGTCACAGGAGGAGGAGGCGGC 3552
DB 3541 CACACCCAGGCGCGCAGCCGCTGGAGTCTGAGGCGTGAAGTGTGTTGGCCGAGCCG 3600
QY 3553 CACACCCAGGCGCGCAGCCGCTGGAGTCTGAGGCGTGAAGTGTGTTGGCCGAGCCG 3612
DB 3601 CAGTGTCCGCTGAAGCTAGTGTCCGGCTGAGGCTGAGCGAGTGTCCAGGCCAAGGCT 3660
QY 3613 CAGTGTCCGCTGAAGCTAGTGTCCGGCTGAGGCTGAGCGAGTGTCCAGGCCAAGGCT 3672
DB 3661 GAGTGTCCAGCAGCAGCTGCGCTTCTCACTTCCACAGAGGTGCGGCTCCAGCCCA 3720
QY 3673 GAGTGTCCAGCAGCAGCTGCGCTTCTCACTTCCACAGAGGTGCGGCTCCAGCCCA 3732
DB 3721 GGGCCAGCTTCTCTGACAGAGAGCCGGCTTCCACTTCCCATAGATAGATATTCATCC 3780
QY 3733 GGGCCAGCTTCTCTGACAGAGAGCCGGCTTCCACTTCCCATAGATAGATATTCATCC 3792
DB 3781 CCAGAT 3786
QY 3793 CCTGAT 3798

RESULT 13

ID US-09-026-981-35 STANDARD; DNA; UNC; 4023 BP.
AC xxxxxx
DE Sequence 35, Application US/09026981
CC Sequence 35, Application US/09026981
CC GENERAL INFORMATION:
CC APPLICANT: Counter, Christopher M.
CC APPLICANT: Meyerson, Matthew
CC APPLICANT: Weinberg, Robert A.
CC TITLE OF INVENTION: Telomerase Catalytic subunit Gene and
CC NUMBER OF SEQUENCES: 52
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
CC STREET: Two Militia Drive
CC CITY: Lexington
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 02173
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/09/026,981
CC FILING DATE: 20-FEB-1998
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 60/064,322
CC FILING DATE: 30-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 60/055,762
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 60/054,549
CC FILING DATE: 01-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 60/047,151
CC FILING DATE: 20-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 60/038,750
CC FILING DATE: 20-FEB-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Granahan, Patricia
CC REGISTRATION NUMBER: 32,227
CC REFERENCE/DOCKET NUMBER: WH197-11p4AM
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 781-861-6240
CC TELEFAX: 781-861-9540
CC INFORMATION FOR SEQ ID NO: 35:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4023 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC SEQUENCE 4023 BP: 668 A; 1363 C; 1277 G; 715 T; 0 OTHER.
Query Match 99.6%; Score 3781; DB 49; Length 4023;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 3784; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
DB 3 GCGAGGCTGCTGCTGCTGCGCAGCTGGGAAGCCCTGGGCCCGGCGGAGATGC 62
QY |||||||
DB 12 GCGAGGCTGCTGCTGCTGCGCAGCTGGGAAGCCCTGGGCCCGGCGGAGATGC 71
QY |||||||
DB 63 GCGGCGTCCCGCGCGGAGCGGCGGCTGCTGCTGCGCAGCTGGGAAGCCCTGGGCCCGGCGGAGATGC 122
QY |||||||
DB 72 GCGGCGTCCCGCGCGGAGCGGCGGCTGCTGCTGCGCAGCTGGGAAGCCCTGGGCCCGGCGGAGATGC 131
QY |||||||
DB 123 TCGCGTGGCCACGTTGCTGCGGCGCTGGGCGCCCAAGGCTGGCGGCTGTGCAAGCGC 182
QY |||||||
DB 132 TCGCGTGGCCACGTTGCTGCGGCGCTGGGCGCCCAAGGCTGGCGGCTGTGCAAGCGC 191

D	b	183	GGAACCCGGGCGCTTTTCCGGCGCCTTGATGGGCCAGTGCCTGGTGTGCTGCCCTGGAGC	242
Q	y	192	GGGACCCGGGGGGCTTTCGGCGCCTGGTGGCCAGTGCCTGGTGTGCTGGCCTGGAGCA	251
D	b	243	CACGAGCGCCCCCGCGCCCCCTCTTCGCGAGGTGTCCGTCCGTAAGAGAGCGGGGG	302
Q	y	252	CACGGCGCCCCCGCGCCCCCTCTCTCCGCGAGGTGTCTGCTGAAAGAGCTGGTGG	311
D	b	303	CCCGAGTGTCAAGAGGCTGTGGCAGCGCGGCGAAGAACAATGCTGGCCTTTCGGCTTCG	362
Q	y	312	CCGAGTGTCTGAGAAGGCTGTGGAGCGGGGGCGAAGAACGTGCTGGCCTTCGGCTTCG	371
D	b	363	CGCTGTGAGAGGGGCCCGGGGGCCCCCGAGGCTTTCACCAACCAGCTGGCGACT	422
Q	y	372	CGCTGTGAGAGGGGCCCGGGGGCCCCCGAGGCTTTCACCAACCAGCTGGCGAGCT	431
D	b	423	ACCGGCCAACAGGATGATCCGAGCACATCGGGGGAGCGGGGGCGTGGGGGCGCTGTGC	482
Q	y	432	ACCTGGCCCAACAGGTATCCGAGCACATCGGGGGAGCGGGGGCGTGGGGGCGCTGTGC	491
D	b	483	GCCGCGTGGGCGAGAGCTGTGCTACCTGCTGTGCACAGCTGCAGCGCTTGTGTGTGG	542
Q	y	492	GCGCGTGGGCGAGAGCTGTGCTGTACCTGTGTGCACAGCTGCAGCGCTTGTGTGTGG	551
D	b	543	TGGCTCCCACTGTGCGCTTACCAAGGTGTGGGGCGCGCTGTACCAAGCTCGGCGCTCCA	602
Q	y	552	TGGCTCCCACTGTGCGCTTACCAAGGTGTGGGGCGCGCTGTACCAAGCTCGGCGCTCCA	611
D	b	603	CTCAGGCGCGGGCCCCCGCCACAGCTAGTGAAGCCCCGAAGGGGTGTGGGATGCGAAGGG	662
Q	y	612	CTCAGGCGCGGGCCCCCGCCACAGCTAGTGAAGCCCCGAAGGGGTGTGGGATGCGAAGGG	671
D	b	663	CCTGAAGCAATAAGCTTCAGGAGGCGGGGGTCCCCTGGGCTGCGACGCCCGGGGTGGA	722
Q	y	672	CCTGAAGCAATAAGCTTCAGGAGGCGGGGGTCCCCTGGGCTGCGACGCCCGGGGTGGA	731
D	b	723	GGAAGGCGGGGGGCGATGTGCCAGCCGAATGTGCGGTGCCCAAAGGCCAGGCGTGGCG	782
Q	y	732	GGAAGGCGGGGGGCGATGTGCCAGCCGAATGTGCGGTGCCCAAAGGCCAGGCGTGGCG	791
D	b	783	CTGCGCCCTGAAGCGGAGCGGAGCGCGGTGGGAGGGGGTCTGGGGCCCAACCGGGCGAGA	842
Q	y	792	CTGCGCCCTGAAGCGGAGCGGAGCGCGGTGGGAGGGGGTCTGGGGCCCAACCGGGCGAGA	851
D	b	843	CGCGTGAACCGAGTAGACCTGTGTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	902
Q	y	852	CGCGTGAACCGAGTAGACCTGTGTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	911
D	b	903	CCACCTCTTTGAGAGGTGCGCTCTCTGGCACGCGCCACTCCCAACCATCCGTGGGCGCC	962
Q	y	912	CCACCTCTTTGAGAGGTGCGCTCTCTGGCACGCGCCACTCCCAACCATCCGTGGGCGCC	971
D	b	963	AGCAACAGGGGGCCCCCATTCACATCCGGGCGACACAGTCCCTGGGACACGCTTGTCTC	1022
Q	y	972	AGCAACAGGGGGCCCCCATTCACATCCGGGCGACACAGTCCCTGGGACACGCTTGTCTC	1031
D	b	1023	CCCCGGTATAGCGAGACCAACACACTCTCTACTCTCTACAGCGACAAAGAGAGAGCTGC	1082
Q	y	1032	CCCCGGTATAGCGAGACCAACACACTCTCTACTCTCTACAGCGACAAAGAGAGAGCTGC	1091
D	b	1083	GGCCCTCTTCTACTAGCTCTCTAGAGGCCAGGCTGAAGTGGGCTCGAGAGCTGTGG	1142
Q	y	1092	GGCCCTCTTCTACTAGCTCTCTAGAGGCCAGGCTGAAGTGGGCTCGAGAGCTGTGG	1151
D	b	1143	AGACATCTTTTGTGGTTTCCAGAGCCTTGATGCGAAGGACTCCCGCAGATTGCCCGCC	1202
Q	y	1152	AGACATCTTTTGTGGTTTCCAGAGCCTTGATGCGAAGGACTCCCGCAGATTGCCCGCC	1211
D	b	1203	TGCCCAAGCGCTACTTGGCAATCGGGGCCCTGTTTTGGAGTGTGTGGGAACCAACGGGC	1262
Q	y	1212	TGCCCAAGCGCTACTTGGCAATCGGGGCCCTGTTTTGGAGTGTGTGGGAACCAACGGGC	1271
D	b	1263	AGTGCCTTACGGGGTGTCTCTCAAGACGACTGCCCGCTGGAGCTGTGGTCAACCCAG	1322

QY	1272	AATGCCCCCTACGGGGTGTGCTTCCTCAAGAGCGCATGCCCCTGTGGACTCGGGTCACCCAG	1331
Db	1323	CAGCCGGTGTCGTGCCCGGGGAAGACCACAAGGCTCTGTGGCGCCCCCGAGAGAGAG	1382
QY	1332	CAGCCGGTGTCGTGCCCGGGGAAGACCACAAGGCTCTGTGGCGCCCCCGAGAGAGAG	1391
Db	1383	ACACAGACCCCCGCTGCCTGTGTGCAGCTGTCCGCCAGCACAGCAGCCCCGTGTGCAGGTGT	1442
QY	1392	ACACAGACCCCCGCTGCCTGTGTGCAGCTGTCCGCCAGCACAGCCCCGTGTGCAGGTGT	1451
Db	1443	ACGGCTTGTTGCTGGGGCTTGCTTGCCCGCGGCTGTGTCCCCCAGGCTCTTGGGCTCCAGGC	1502
QY	1452	ACGGCTTGTTGCTGGGGCTTGCTTGCCCGCGGCTGTGTCCCCCAGGCTCTTGGGCTCCAGGC	1511
Db	1503	ACAAAGAAGCGCGCTTCCTCCAGAGAACACAAAGATTATCTCCCTGGGGGAAGCATGGCA	1562
QY	1512	ACAAAGAAGCGCGCTTCCTCCAGAGAACACAAAGATTATCTCCCTGGGGGAAGCATGGCA	1571
Db	1563	AGCTCTCGCTGCAGAGAGCTGACGTGGAAGATAGCGTGGGGGCTGCGCTTGTGCAGCA	1622
QY	1572	AGCTCTCGCTGCAGAGAGCTGACGTGGAAGATAGCGTGGGGGCTGCGCTTGTGCAGCA	1631
Db	1623	GGAGCCCAAGGGGTTGGCTGTGTTCGGGGCCGACAGACACCGTCTGGGTAGAGATCTGG	1682
QY	1632	GGAGCCCAAGGGGTTGGCTGTGTTCGGGGCCGACAGACACCGTCTGGGTAGAGATCTGG	1691
Db	1683	CGAAGTCCCTGCACATGGCGGATGAGTAGTGATGCTGTGAGCTGCTCAAGTCTTTCTTT	1742
QY	1692	CGAAGTCCCTGCACATGGCGGATGAGTAGTGATGCTGTGAGCTGCTCAAGTCTTTCTTT	1751
Db	1743	ATGTACAGGAGACACAGTTTCAAAGAAACAGGCTTTTTCTTACCGGGAAGATGTCTGGA	1802
QY	1752	ATGTACAGGAGACACAGTTTCAAAGAAACAGGCTTTTTCTTACCGGGAAGATGTCTGGA	1811
Db	1803	GCAAGTTGCAAAAGCATTTGGATCAACACAGACTTAAAGAGGTGCAAGCTGCGGGAGCTGT	1862
QY	1812	GCAAGTTGCAAAAGCATTTGGATCAACACAGACTTAAAGAGGTGCAAGCTGCGGGAGCTGT	1871
Db	1863	CGGAAGCAGAGGTCAGGGCAGCATTCGGGMAAGCCGCGCCCTGCTGACAGTCAACATCC	1922
QY	1872	CGGAAGCAGAGGTCAGGGCAGCATTCGGGMAAGCCGCGCCCTGCTGACAGTCAACATCC	1931
Db	1923	GCTTATCCCCCAAGCCTGCAGCGGCTGCGGCCGATTGTGTAACTGTGACTACGTCTGTGGAG	1982
QY	1932	GCTTATCCCCCAAGCCTGCAGCGGCTGCGGCCGATTGTGTAACTGTGACTACGTCTGTGGAG	1991
Db	1983	CCAGAACGTTCCGCAGAGAAAAGAGGGCCGAGCGTCTACCTCGAAGGTTGAAGSCACTGT	2042
QY	1992	CCAGAACGTTCCGCAGAGAAAAGAGGGCCGAGCGTCTACCTCGAAGGTTGAAGSCACTGT	2051
Db	2043	TGAGGTGTCTCAACTACAGAGCGGGGGCGGGCCGCGGCTCCTGTGGGCGCTGTGTGGTG	2102
QY	2052	TGAGGTGTCTCAACTACAGAGCGGGGGCGGGCCGCGGCTCCTGTGGGCGCTGTGTGGTG	2111
Db	2103	GCGTGGACATATTCACAAGGGCGCTGGCGACCTTGTGCTGTGCTGTGGGGCCCAAGSACC	2162
QY	2112	GCGTGGACATATTCACAAGGGCGCTGGCGACCTTGTGCTGTGCTGTGGGGCCCAAGSACC	2171
Db	2163	CGCGCGCTGAGCTGTACTTTGTCAAGGTGTGATGTACGGGGCGGTAACGACACCATCCCC	2222
QY	2172	CGCGCGCTGAGCTGTACTTTGTCAAGGTGTGATGTACGGGGCGGTAACGACACCATCCCC	2231
Db	2223	AGGACAGGCTCACGAGAGTCAATGCCAGCATATCAAAACCCCAAGAACAGTACTGCGTGC	2282
QY	2232	AGGACAGGCTCACGAGAGTCAATGCCAGCATATCAAAACCCCAAGAACAGTACTGCGTGC	2291
Db	2283	GTCGGATCCGATGGGCCGAAGAGGCCGCCCATAGGGCAGTCCGCAAGGCTTCAAGAGGCC	2342
QY	2292	GTCGGATCCGATGGGCCGAAGAGGCCGCCCATAGGGCAGTCCGCAAGGCTTCAAGAGGCC	2351
Db	2343	ACGTCTTACCTTGACAGACCTCAGCCGTACATGCGAACAGTTCTGTGGCTCACTGACGG	2402

QY 2352 AGCTCTCTACCTTGACAGACCTCCAGCTACATGCGACAGTTCTGCTCACCCTGACG 2411
Db 2403 AGACACAGCCCGCTGAGGAGATGCCGTGCTCATTCGAGACAGCTCCTCCTGAATGAGGCCA 2462
QY 2412 AGACACAGCCCGCTGAGGAGATGCCGTGCTCATTCGAGACAGCTCCTCCTGAATGAGGCCA 2471
Db 2463 GCAGTGGCCCTTTCGAGAGTCTTCTCTACGCTTCATGTCACACAGCCGCTGCTGATCAGG 2522
QY 2472 GCAGTGGCCCTTTCGAGAGTCTTCTCTACGCTTCATGTCACACAGCCGCTGCTGATCAGG 2531
Db 2523 GCAAGTCTTACGTCACATGTCAGAGGAGATCCCGAGGCTCCATCTCTCCACGCTGCTCT 2582
QY 2532 GCAAGTCTTACGTCACATGTCAGAGGAGATCCCGAGGCTCCATCTCTCCACGCTGCTCT 2591
Db 2583 GCAGCTGTCTCTACGCGGACATGAGAACAAAGCTGTTGCGGGGATTCGCGGGAGCGGC 2642
QY 2592 GCAGCTGTCTCTACGCGGACATGAGAACAAAGCTGTTGCGGGGATTCGCGGGAGCGGC 2651
Db 2643 TGCTCCTGCGTTGGTGGATGATTTCTTTGGTGAACACGTCACCTCACCCACGCGCAAA 2702
QY 2652 TGCTCCTGCGTTGGTGGATGATTTCTTTGGTGAACACCTCACCTCACCCACGCGCAAA 2711
Db 2703 CCTTCTCAGAGACCTGCTGTCGAGGTGTCCTCTGATGCTGCTGCTGATGCTGCTGCTG 2762
QY 2712 CCTTCTCAGAGACCTGCTGTCGAGGTGTCCTCTGATGCTGCTGCTGATGCTGCTGCTG 2771
Db 2763 AGACAGTGTGAACTTCTCTCTGATAGAACAGAGCCCTGCGTGGACGCTTTTGTTCAGA 2822
QY 2772 AGACAGTGTGAACTTCTCTCTGATAGAACAGAGCCCTGCGTGGACGCTTTTGTTCAGA 2831
Db 2823 TGCGGCGCCACGCGCTTATCCCTGCGGCGCTGCTGATGATCCGCGACCTGAGG 2882
QY 2832 TGCGGCGCCACGCGCTTATCCCTGCGGCGCTGCTGATGATCCGCGACCTGAGG 2891
Db 2883 TGCAGAGCGACTACTCCAGCTATGCCCCGACCTTCATCAGAGCCAGTCTCACTTCAAC 2942
QY 2892 TGCAGAGCGACTACTCCAGCTATGCCCCGACCTTCATCAGAGCCAGTCTCACTTCAAC 2951
Db 2943 GCGGCTTCAAGGCTGGGAGAACATGCTGCGCAACCTTTGGGGTCTTGGCGCTGAAGT 3002
QY 2952 GCGGCTTCAAGGCTGGGAGAACATGCTGCGCAACCTTTGGGGTCTTGGCGCTGAAGT 3011
Db 3003 GTACACAGCTGTTCTGATGATTTGCAAGTGAACAGCTTCAGAGGCTGACCAACATCT 3062
QY 3012 GTACACAGCTGTTCTGATGATTTGCAAGTGAACAGCTTCAGAGGCTGACCAACATCT 3071
Db 3063 ACAAGATCTCTGCTGTCAGAGCGCTGACAGGTTTCAAGCATGTGCTGCTGCTCCATTTCT 3122
QY 3072 ACAAGATCTCTGCTGTCAGAGCGCTGACAGGTTTCAAGCATGTGCTGCTGCTCCATTTCT 3131
Db 3123 ATCAGCAAGTTTGGAAAGAACCCACATTTTCTGCGCGCTCATCTCTGACACAGGCTCTCC 3182
QY 3132 ATCAGCAAGTTTGGAAAGAACCCACATTTTCTGCGCGCTCATCTCTGACACAGGCTCTCC 3191
Db 3183 TCTGCTACTCATCTCTGAAAGAACCAAGAACAGAGATGTGCTGCGGGGACCAAGGCGCG 3242
QY 3192 TCTGCTACTCATCTCTGAAAGAACCAAGAACAGAGATGTGCTGCGGGGACCAAGGCGCG 3251
Db 3243 CCGGCGCTTGCCTCTCGAGAGCGGTGACAGTGGCTGTGCAACCAAGCATCTCTGCTCAAGC 3302
QY 3252 CCGGCGCTTGCCTCTCGAGAGCGGTGACAGTGGCTGTGCAACCAAGCATCTCTGCTCAAGC 3311
Db 3303 TGAAGTACACCGTGTCTACTAGTGCCTCTCTGGGGTCTACTGAGACAGCCAGACGCG 3362
QY 3312 TGAAGTACACCGTGTCTACTAGTGCCTCTCTGGGGTCTACTGAGACAGCCAGACGCG 3371
Db 3363 AGTGAAGTGAAGCTCCCGGGGACGAGCTGCTGCTGAGAGCGCGAGCCACACCGG 3422
QY 3372 AGTGAAGTGAAGCTCCCGGGGACGAGCTGCTGAGAGCGCGAGCCACACCGG 3431
Db 3423 CACTGCGCTGAGCTTCAAGACCATCTCTGAGCTGATGAGCCGCGCCACAGCGAGCGG 3482
QY 3432 CACTGCGCTGAGCTTCAAGACCATCTCTGAGCTGATGAGCCGCGCGCCACAGCGAGCGG 3491

Db 3483 AGACACAGACACACAGACCCCTGTCTACGCGCGGCTCTACGTCCTCCAGGAGAGGAGCGCGC 3542
QY 3492 AGACACAGACACACAGACCCCTGTCTACGCGCGGCTCTACGTCCTCCAGGAGAGGAGCGCGC 3551
Db 3543 CCACACCCAGGCGCGGACGCTGGAGTCTGAGCGCTGAGTGTGTTGGCCGAGGCGCT 3602
QY 3552 CCACACCCAGGCGCGGACGCTGGAGTCTGAGCGCTGAGTGTGTTGGCCGAGGCGCT 3611
Db 3603 GCATGTCGCGCTGAGAGCTGAGTGTCCGCGCTGAGGCTGAGGCTGAGGAGTGTCCAGCAAGGCG 3662
QY 3612 GCATGTCGCGCTGAGAGCTGAGTGTCCGCGCTGAGGCTGAGGAGTGTCCAGCAAGGCG 3671
Db 3663 TGAAGTGTACAGCACACTGCGCTTCTTCACTTCCACACAGGCTGGCGCTGCTCACGCC 3722
QY 3672 TGAAGTGTACAGCACACTGCGCTTCTTCACTTCCACACAGGCTGGCGCTGCTCACGCC 3731
Db 3723 AGGCGCAGCTTTCTCTACACAGAGCCCGGCTTCCACTCCGACATAGGAATAGTCCATC 3782
QY 3732 AGGCGCAGCTTTCTCTCTACACAGAGCCCGGCTTCCACTCCGACATAGGAATAGTCCATC 3791
Db 3783 CCCAGAT 3789
QY 3792 CCCTGAT 3798

RESULT 14
ID US-08-974-549-343 STANDARD; DNA; UNC; 4037 BP.
AC xxxxxx
DT Sequence 343, Application US/08974549
CC Sequence 343, Application US/08974549
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hatley, Calvin B.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit
CC NUMBER OF SEQUENCES: 726
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/974,549
CC FILING DATE: 19-NOV-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/911,312
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph Ted
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002610US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 343:
SEQUENCE CHARACTERISTICS:
LENGTH: 4037 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 56..3454
OTHER INFORMATION: /note="refined sequence of hTERT cDNA"
SEQUENCE 4037 BP: 682 A; 1361 C; 1276 G; 714 T; 4 OTHER.

Query Match 99.5%; Score 3778; DB 47; Length 4037;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 3781; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 1 GCAGCGCTCGTCTCTCTGCGACGAGTGGGAAGCCCTGGCCCCGGCCACCCCGCATGCC 60
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Qy 13 GGAGCGCTCGTCTCTCTCTGCGACGAGTGGGAAGCCCTGGCCCCGGCCACCCCGCATGCC 72
|||
Db 61 GGGCGCTCCCGCTGCGAGCGGTGGCTCCCTGCTGCGAGCCATACCGGAGGTGCT 120
|||
Qy 73 GGGCGTCCCGCTGCGAGCGGTGGCTCCCTGCTGCGAGCCATACCGGAGGTGCT 132
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Db 121 GCGCGTGGCCAGCTTGTGCGAGCGGCTGGGGCCCGCAGGGCTGGGGCTGGTGCAGCGCG 180
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Qy 133 GCGCGTGGCCAGCTTGTGCGAGCGGCTGGGGCCCGCAGGGCTGGGGCTGGTGCAGCGCG 192
|||
Db 181 GGACCGGGGCGCTTCCGCGCGCTGGTGGCCAGTGGTGGTGGTGGTGGTGGTGGTGG 240
|||
Qy 193 GGGCGCGGGGGCTTCCGCGCGCTGGTGGCCAGTGGTGGTGGTGGTGGTGGTGGTGG 252
|||
Db 241 AGGGCGGCGCGCGCGCGCGCGCGCTTCCGCGAGTGGTGGTGGTGGTGGTGGTGGTGG 300
|||
Qy 253 AGGGCGGCGCGCGCGCGCGCGCGCTTCCGCGAGTGGTGGTGGTGGTGGTGGTGGTGG 312
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Db 301 CGAGTGTGCGAGAGCTGTGCGAGCGGCGCGGAGGAAGAGTGGTGGTGGTGGTGGTGG 360
|||
Qy 313 CGAGTGTGCGAGAGCTGTGCGAGCGGCGCGGAGGAAGAGTGGTGGTGGTGGTGGTGG 372
|||
Db 361 GCTGTGAGCGGGGCGCGGG 420
|||
Qy 373 GGTGTGTGAGCGGGGCGCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG 432
|||
Db 421 CGGGCCCAACAGGTGACGAGCGACTGTGGGGGAGCGGGGGCTGGGGGGCTGGTGGTGG 480
|||
Qy 433 CCGGCCCAACAGGTGACGAGCGACTGTGGGGGAGCGGGGGCTGGGGGGCTGGTGGTGG 492
|||
Db 481 CGCGGTGGCGAGAGCTGTGGTTCACCTGTGCGACGCTGGCGCTGTTGTGGTGGT 540
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Qy 493 CGCGGTGGCGAGAGCTGTGTTACCTGTGCGACGCTGGCGCTGTTGTGGTGGT 552
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Db 541 GGCTCCAGCTGCGCTTACAGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG 600
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Qy 553 GGCTCCAGCTGCGCTTACAGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG 612
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Db 601 TCAGGGCGGG 660
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Qy 613 TCAGGGCGGG 672
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Db 661 CTGAACCATATAGCGTACAGGAGCGGGGGTCCCTCGGGGGCTGCAAGCCCGGGTGGAG 720
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Qy 673 CTGAACCATATAGCGTACAGGAGCGGGGGTCCCTCGGGGGCTGCAAGCCCGGGTGGAG 732
|||
Db 721 GAGGCGGG 780
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Qy 733 GAGGCGGG 792
|||
Db 781 TGGCCCTGAGCGGAGGAGCGAGCGCCCTTGGGAGGGGTCTGGGGCCCGGGGAGAGAC 840
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Qy 793 TGGCCCTGAGCGGAGGAGCGAGCGCCCTTGGGAGGGGTCTGGGGCCCGGGGAGAGAC 852
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Db 961 GCACCAAGGG 1020
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Qy 1033 CCGCGTGAAGCGCGAGAACAGCACTTCTTACTTCTTACTTCTTACTTCTTACTTCTTACT 1092
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Qy 1093 GCCCTCTTCTTACTTCTTACTTCTTACTTCTTACTTCTTACTTCTTACTTCTTACTTCT 1152
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Qy 1153 GACCATCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 1212
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Db 1741 TGTACAGGAGACCAAGCTTCAAAAGACAGGCTCTTTTCTACCGCGCGAGTGTCTGAG 1800
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11111
QY 3793 CCTGAT 3798
RESULT 15
ID US-09-108-401-1 STANDARD; DNA: UNC; 3964 BP.
AC xxxxxx
DT Sequence 1, Application US/09108401
DE Sequence 1, Application US/09108401
CC GENERAL INFORMATION:
CC APPLICANT: Kiliian, AndrzeJ
CC APPLICANT: Bowtell, David
CC TITLE OF INVENTION: VERTEBRATE TELOMERASE GENES AND PROTEINS AND USES
CC TITLE OF INVENTION: THEOE
CC FILE REFERENCE: 190106.407
CC CURRENT APPLICATION NUMBER: US/09/108,401
CC CURRENT FILING DATE: 1998-06-30
CC NUMBER OF SEQ ID NOS: 155
CC SOFTWARE: PatentIn Ver. 2.0
CC SEQ ID NO 1
CC LENGTH: 3964
CC TYPE: DNA
CC ORGANISM: Homo sapiens
CC SEQUENCE 3964 BP: 661 A; 1337 C; 1257 G; 709 T; 0 OTHER.
Query Match 98.1%; Score 3725; DB 60; Length 3964;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 3728; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
DB 1 ATGCCGGCGGCTCCCGCTGCGAGCCGTCGCTCCCTGCTGCGACCCACTACCGCGAG 60
QY 68 ATGCCGGCGGCTCCCGCTGCGAGCCGTCGCTCCCTGCTGCGAGCCACTACCGCGAG 127
DB 61 GTGCTGCGGCTGCGACGTTCTGTCGCGGCGCTGCGGCGCCCAAGGCGCGGCTGTCAG 120
QY 128 GTGCTGCGGCTGCGACGTTCTGTCGCGGCGCTGCGGCGCCCAAGGCGCGGCTGTCAG 187
DB 121 CGGCGGAGACCGGCGGCTTTCCGCGCGCTGTGCGCCAGTGCCTGGTGTGCTGCGCTGG 180
QY 188 CGGCGGAGACCGGCGGCTTTCCGCGCGCTGTGCGCCAGTGCCTGGTGTGCTGCGCTGG 247
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QY 308 GTGCGCCGAGTGTCTGAGAGGCTGTGCGAGCGCGGCGGCAAGAGTGTGCTGCTTCGCG 367
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QY 428 AGCTACGTCGCGCAACAGGTGACGACGACGTCGCGGGGAGGCGGGGCGTGTGCTG 487
DB 421 TTGCGCGCGGTGCGGAGACGTCGTGTGCTTCACTGTGTCGACGTCGCGCTTTTGTG 480
QY 488 CTGGCGCGGTGCGGAGACGTCGTGTGCTTCACTGTGTCGACGTCGCGCTTTTGTG 547
DB 481 CTGTGTGCTCCAGCTGTGCGCTACCAAGGTGTGCGGGCGCGCGCTGTACAGGCTCGCGCT 540
QY 548 CTGTGTGCTCCAGCTGTGCGCTACCAAGGTGTGCGGGCGCGCGCTGTACAGGCTCGCGCT 607
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QY 608 GGCATTCAGGGCGCGCGCGCGCGCACACGCTAGTGAACCCCAAGGCGTGTGGATGCGAA 667
DB 601 CGGGCGCTGGAACATAGCTACAGGAGCGCGGGGTCGCCCTGTGAGCTGTGCAGCCCGGCT 660
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QY 1748 TTTTATGTACGAGAGACACGTTTCAAAAAGAACAGAGCTTTTCTTACCGGAAGAGTGTTC 1807

MUSE (TM)

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Tue Jun 27 15:11:18 2000; MasPar time 65.85 Seconds
805.717 Million cell updates/sec
Tabular output not generated.

Title: >US-08-951-733-20
Description: (1-1154) from US08951733.pep
Perfect Score: 8624
Sequence: 1 HASGQRCVLTMTPEALAPAT.....TALPAANPALPSDFKTLTD 1154

Scoring table:
PAM 150
Gap 11

Searched: 380756 seqs, 45976785 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database:

a-pending
1:PS 2:U60 3:U7 4:U80 5:U81 6:U82 7:U83 8:U84A 9:U84B
10:U85 11:U86 12:U87 13:U88 14:U89 15:U90 16:U91 17:U92
18:NEWP 19:NEWU6 20:NEWU7 21:NEWU8 22:NEWU9

Statistics: Mean 40.998; Variance 197.571; scale 0.208

Prd. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	8624	100.0	1154	14 US-08-951-	Sequence 20, Applicat	0.00e+00
2	8607	99.8	1189	14 US-08-974-	Sequence 613, Applicat	0.00e+00
3	8607	99.8	1189	14 US-08-911-	Sequence 34, Applicat	0.00e+00
4	8607	99.8	1189	14 US-08-912-	Sequence 325, Applicat	0.00e+00
5	8607	99.8	1189	14 US-08-911-	Sequence 34, Applicat	0.00e+00
6	8607	99.8	1200	14 US-08-911-	Sequence 33, Applicat	0.00e+00
7	8607	99.8	1200	14 US-08-911-	Sequence 33, Applicat	0.00e+00
8	8607	99.8	1200	14 US-08-974-	Sequence 324, Applicat	0.00e+00
9	8607	99.8	1200	14 US-08-974-	Sequence 600, Applicat	0.00e+00
10	8607	99.8	1285	14 US-08-912-	Sequence 314, Applicat	0.00e+00
11	8607	99.8	1285	14 US-08-911-	Sequence 32, Applicat	0.00e+00
12	8607	99.8	1285	14 US-08-911-	Sequence 32, Applicat	0.00e+00
13	8607	99.8	1407	14 US-08-911-	Sequence 55, Applicat	0.00e+00
14	8590	99.6	1407	14 US-08-911-	Sequence 55, Applicat	0.00e+00
15	8590	99.6	1407	14 US-08-912-	Sequence 628, Applicat	0.00e+00
16	8590	99.6	1407	14 US-08-912-	Sequence 334, Applicat	0.00e+00
17	8590	99.6	1132	22 US-09-108-	Sequence 2, Applicatio	0.00e+00
18	8465	98.2	1132	14 US-08-911-	Sequence 2, Applicatio	0.00e+00
19	8465	98.2	1132	14 US-08-911-	Sequence 2, Applicatio	0.00e+00
20	8465	98.2	1132	13 US-08-854-	Sequence 225, Applicat	0.00e+00
21	8465	98.2	1132	13 US-08-854-	Sequence 225, Applicat	0.00e+00

RESULT	ID	US-08-951-733-20	STANDARD:	PRT:	1154 AA.
XX	AC	xxxxxx			
XX	DT				
XX	XX				
DE	Sequence 20, Application US/08951733				
CC	Sequence 20, Application US/08951733				
CC	GENERAL INFORMATION:				
CC	APPLICANT: Harrington, Lea A.				
CC	APPLICANT: Robinson, Murray O.				
CC	TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS				
CC	NUMBER OF SEQUENCES: 44				
CC	CORRESPONDENCE ADDRESS:				
CC	ADDRESS: Amgen Inc.				
CC	STREET: One Amgen Center Drive				
CC	CITY: Thousand Oaks				
CC	STATE: CA				
CC	COUNTRY: USA				
CC	ZIP: 91320-1789				
CC	COMPUTER READABLE FORM:				
CC	MEDIUM TYPE: Floppy disk				
CC	COMPUTER: IBM PC compatible				
CC	OPERATING SYSTEM: PC-DOS/MS-DOS				
CC	SOFTWARE: Patent Release #1.0, Version #1.30				
CC	CURRENT APPLICATION DATA:				
CC	APPLICATION NUMBER: US/08/951,733				
CC	FILING DATE: 16-OCT-1997				
CC	CLASSIFICATION: 435				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/873,039				
CC	FILING DATE: 11-JUN-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/751,189				
CC	FILING DATE: 15-NOV-1996				
CC	ATTORNEY/AGENT INFORMATION:				
CC	NAME: Oleski, Nancy A.				
CC	REGISTRATION NUMBER: 34,688				
CC	REFERENCE/DOCKET NUMBER: A-433B				
CC	TELECOMMUNICATION INFORMATION:				
CC	TELEPHONE: (805) 447-6504				
CC	TELEFAX: (805) 499-8011				
CC	INFORMATION FOR SEQ ID NO: 20:				

SEQUENCE CHARACTERISTICS:
CC LENGTH: 1154 amino acids
CC TYPE: amino acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC SEQUENCE 1154 AA; 129326 MW; 6842246 CN;

Query Match 100.0%; Score 8624; DB 14; Length 1154;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 1154; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 HASORCVLTMTWETALPATPAMPAPRCRAVRSILSRSHREYVPLAFVFRIGPOGRRL 60
QY 1 HASORCVLTMTWETALPATPAMPAPRCRAVRSILSRSHREYVPLAFVFRIGPOGRRL 60
Db 61 VORGDPAFALVAOCLVCVPMDBARPPAPASFRQVSCLELVARVLOLRCERGAKNVLA 120
QY 61 VORGDPAFALVAOCLVCVPMDBARPPAPASFRQVSCLELVARVLOLRCERGAKNVLA 120
Db 121 FGFALLDAGARGPPBATTSYRSTLPNTVTDALRGSGAMGILLRRVGDVYLHLLARCAL 180
QY 121 FGFALLDAGARGPPBATTSYRSTLPNTVTDALRGSGAMGILLRRVGDVYLHLLARCAL 180
Db 181 FVLVAPSCAYOVCGPLXOLGAATOARPPHASGPRRLGCEBAMNHSVREAGVPLGLPA 240
QY 181 FVLVAPSCAYOVCGPLXOLGAATOARPPHASGPRRLGCEBAMNHSVREAGVPLGLPA 240
Db 241 FGARRRGSGASRSLLPLKPRRGAAPBEPERTPVQGSVAHBPRTGSPDRGFCVSPARP 300
QY 241 FGARRRGSGASRSLLPLKPRRGAAPBEPERTPVQGSVAHBPRTGSPDRGFCVSPARP 300
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QY 301 AEEATSLLEGALSSTRHSHPSVGRHHAHPBSTSRPPRMDPCPPVVAETNHEFLYSSDK 360
Db 361 EQLRPSEFLSLSRSLTGARLVETIFLGSRPMPGTRRLPRLPORWOKRPFLELLG 420
QY 361 EQLRPSEFLSLSRSLTGARLVETIFLGSRPMPGTRRLPRLPORWOKRPFLELLG 420
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QY 421 NHAOCYGVLLTKHCPPLRAAVTPAAGVCAREKPOGSVAPEEDTDPRLVQLROHSSP 480
Db 481 WQYGFYRACLRRLVPPGLMGRNRRERFLNKKFISLGHAKLSLOELTWKMSVRCDA 540
QY 481 WQYGFYRACLRRLVPPGLMGRNRRERFLNKKFISLGHAKLSLOELTWKMSVRCDA 540
Db 541 WLRSPGVGCYPALEHRLREIILAKFLHMLKSVYVELLSFFVYETTFQKNRLFYRK 600
QY 541 WLRSPGVGCYPALEHRLREIILAKFLHMLKSVYVELLSFFVYETTFQKNRLFYRK 600
Db 601 SVMSKLOSIGIRHLKRVOLRELSAEAYRQREARPALTLTSLRFLPIPKDGLRPIVNDY 660
QY 601 SVMSKLOSIGIRHLKRVOLRELSAEAYRQREARPALTLTSLRFLPIPKDGLRPIVNDY 660
Db 661 VVGARTFRERKARBLTSRVKALSVLNEYARRRPGLLGASVGLDIDHRAKMFVLYVR 720
QY 661 VVGARTFRERKARBLTSRVKALSVLNEYARRRPGLLGASVGLDIDHRAKMFVLYVR 720
Db 721 AODPPELYFKVAVDTIPDDRLEVIASIIKPPONTCVRRYAVVQAAAGHAKA 780
QY 721 AODPPELYFKVAVDTIPDDRLEVIASIIKPPONTCVRRYAVVQAAAGHAKA 780
Db 781 FKSHVSTLTDLPYMRQFVAHLQETSPLRDAVVEQSSSLNEASSGLEDVFLRFMCHAV 840
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Db 841 RIRKRSYVQCGIPQSGSLTSLCSDGDMENKLFAGIRDDGLLRLVDFLLVTPHLT 900
QY 841 RIRKRSYVQCGIPQSGSLTSLCSDGDMENKLFAGIRDDGLLRLVDFLLVTPHLT 900
Db 901 HAKTFLRTLVGVEYGCYVNLRTVNFVPEDEALGSTAVQMPAHGLFPMCGLLDTR 960

QY 901 HAKTFLRTLVGVEYGCYVNLRTVNFVPEDEALGSTAVQMPAHGLFPMCGLLDTR 960
Db 961 TLEVQSDYSYARTSIRASLTFFNKGFKAGNMRKLFGLVRLCHSLFDLQVNSIQTV 1020
QY 961 TLEVQSDYSYARTSIRASLTFFNKGFKAGNMRKLFGLVRLCHSLFDLQVNSIQTV 1020
Db 1021 TNYIKILLQAYRFHACVLDLPFHQOVWKNPTFFLRVISTPASICYSILKAKNAGSLGA 1080
QY 1021 TNYIKILLQAYRFHACVLDLPFHQOVWKNPTFFLRVISTPASICYSILKAKNAGSLGA 1080
Db 1081 KGAGPLPSEAVOMLCHQATLKLTRRVTYVPLGSLPTAOTOLSKRLPGTTTLEAEA 1140
QY 1081 KGAGPLPSEAVOMLCHQATLKLTRRVTYVPLGSLPTAOTOLSKRLPGTTTLEAEA 1140
Db 1141 ANPALPSDFKTIID 1154
QY 1141 ANPALPSDFKTIID 1154

RESULT 2
ID US-08-974-549-613 STANDARD: PRT: 1189 AA.
XX xxxxxx
AC
DE Sequence 613, Application US/08974549
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit
CC NUMBER OF SEQUENCES: 726
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/974,549
CC FILING DATE: 19-NOV-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312

CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002610US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 613:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1189
CC OTHER INFORMATION: /note="fusion protein composed of
CC OTHER INFORMATION: melittin signal sequence and full length
CC OTHER INFORMATION: htrp protein"
CC SEQUENCE 1189 AA: 133179 MW: 7256545 CN;

Query Match 99.8% Score 8607; DB 14; Length 1189;
Best Local Similarity 99.9% Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 37 ASTORCVLLRTWEALAPATPMPAPRCRAVRSLSRSHYREVLPATFVRRLGROGWLTV 96
Qy 2 ASGQRCVLLRTWEALAPATPMPAPRCRAVRSLSRSHYREVLPATFVRRLGROGWLTV 61
nh 97 QRCGPAPFRAVAOCVCPWDARPPAPBSFQVSCLEKELVAVYLOLRCRGAKNTLAF 156
Qy 62 QRCGPAPFRAVAOCVCPWDARPPAPBSFQVSCLEKELVAVYLOLRCRGAKNTLAF 121
Db 157 GFALLDGRGPPPAFTSVRSYLPNTVTDLRSGAGMLLRVGDVYLHLLARCALF 216
Qy 122 GFALLDGRGPPPAFTSVRSYLPNTVTDLRSGAGMLLRVGDVYLHLLARCALF 181
Db 217 VLVAPSCAYQVCGPPLVQLGATQARPPHNSGPRRLGCERAMNHSYREAGVPLGLPAP 276
Qy 182 VLVAPSCAYQVCGPPLVQLGATQARPPHNSGPRRLGCERAMNHSYREAGVPLGLPAP 241
Db 277 GARRRGSGASASLPLKPRPRRGAAPEPRTVYGGGSMNHGPGRTGSPSRGCVVSPARPA 336
Qy 242 GARRRGSGASASLPLKPRPRRGAAPEPRTVYGGGSMNHGPGRTGSPSRGCVVSPARPA 301
Db 337 EEAATSLGALSGTRHSHPVGRHAGPSTSRPPRPMDTQCPRYATATKTFIVSSSGKE 396
Qy 302 EEAATSLGALSGTRHSHPVGRHAGPSTSRPPRPMDTQCPRYATATKTFIVSSSGKE 361
Db 397 QLRPSFLLSLRPSLTGARLVEITFLGSRPMPGTPRRRLPDRYQWMBPLFLELLGN 456
Qy 362 QLRPSFLLSLRPSLTGARLVEITFLGSRPMPGTPRRRLPDRYQWMBPLFLELLGN 421
Db 457 HAQCPYGVLLTHCPRLRAAVTPAAGVCAREKPOGSAAPBEEDIDPRRLVOLLROHSSPW 516
Qy 422 HAQCPYGVLLTHCPRLRAAVTPAAGVCAREKPOGSAAPBEEDIDPRRLVOLLROHSSPW 481
Db 517 QVYGFVRACLRLVPPGLMGRSHNRERFLRNTKFTSLGKAHKLSTLOELTKMVSROCAM 576

Qy 482 QVYGFVRACLRLVPPGLMGRSHNRERFLRNTKFTSLGKAHKLSTLOELTKMVSROCAM 541
Db 577 LRSPGVCYPAAEHRLREELIAKFLHMLSVYVELLRSEFFYTEFTFOKNRLFEYRKS 636
Qy 542 LRSPGVCYPAAEHRLREELIAKFLHMLSVYVELLRSEFFYTEFTFOKNRLFEYRKS 601
Db 637 VMSKLSIGIRQHILKRVOLRELSAEVROHREARPALTSRLRTIPRDPGRIPVNMDDY 696
Qy 602 VMSKLSIGIRQHILKRVOLRELSAEVROHREARPALTSRLRTIPRDPGRIPVNMDDY 661
Db 697 VGATFRERKRAERLTSRVKAFLSVLYERARPGLLGASVGLDDIHRARTFYLVRVA 756
Qy 662 VGATFRERKRAERLTSRVKAFLSVLYERARPGLLGASVGLDDIHRARTFYLVRVA 721
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Qy 722 QDPPELTYFKVNDVTGAYDTIPQDLTEVIASIIKPONTYCVRRYAVVQKAHGHVRAK 781
Db 817 KSHVSTLTDLPYMRQVYAHQETSPLRDAVYIQQSSSLNASSGLFDVFLRFMCHNAVR 876
Qy 782 KSHVSTLTDLPYMRQVYAHQETSPLRDAVYIQQSSSLNASSGLFDVFLRFMCHNAVR 841
Db 877 IRGKSYVQCGIIPGSLSTLSCSLCYGDMENKLPAGIRRDGLLRLVDPLVTPHLTH 936
Qy 842 IRGKSYVQCGIIPGSLSTLSCSLCYGDMENKLPAGIRRDGLLRLVDPLVTPHLTH 901
Db 937 AKTFRLTLVRGVPPEYGCYNLKTIVNFPVEDEALGTAFFVQMAHGLFPWCGLLDRT 966
Qy 902 AKTFRLTLVRGVPPEYGCYNLKTIVNFPVEDEALGTAFFVQMAHGLFPWCGLLDRT 961
Db 997 LEVSDVSSYARTISIRASLTFRNRFKAGRNRRKLFGLVLRKCHSLFDLOVNSLQVCT 1056
Qy 962 LEVSDVSSYARTISIRASLTFRNRFKAGRNRRKLFGLVLRKCHSLFDLOVNSLQVCT 1021
Db 1057 NIYKILLQAFRFACVQLQLEPFHQVWKNPFFFLRVYISDTFASLCSYSLKAKNAGMSLGAK 1116
Qy 1022 NIYKILLQAFRFACVQLQLEPFHQVWKNPFFFLRVYISDTFASLCSYSLKAKNAGMSLGAK 1081
Db 1117 GAAGPLPSEAVQWLCQAFLLKTLRHRVTVPLLSLRTAQQLSRKLPQTTLALEANA 1176
Qy 1082 GAAGPLPSEAVQWLCQAFLLKTLRHRVTVPLLSLRTAQQLSRKLPQTTLALEANA 1141
Db 1177 NPALPSPDKTILTD 1189
Qy 1142 NPALPSPDKTILTD 1154

RESULT 3
ID US-08-911-312A-34 STANDARD; PRT: 1189 AA.
AC xxxxxx
XX
XX
XX
DE Sequence 34, Application US/08911312A
XX
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA

ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/911,312A
FILING DATE: 14-AUG-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Elmhorn, Gregory P.
REGISTRATION NUMBER: 38,440
REFERENCE/DOCKET NUMBER: 015389-002500US
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
LENGTH: 1189 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
Query Match 99.8%; Score 8607; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

302 EEAATSLGALSGTRSHSPVSGROHAGPSTSRPPRPMDTCCPPVYAEFTKHFLYSSGDKE 361
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362 QURPSFLSSLRPSLTGARRLVETIFLGSRPMPGTPRRRLPQRYQMRLPELLELGN 421
457 HQCPYGVILTKHCLRAAVYPAACVCAREKPGQSVAAPEEDTDPRLVOLLROHSSFW 516
422 HQCPYGVILTKHCLRAAVYPAACVCAREKPGQSVAAPEEDTDPRLVOLLROHSSFW 481
517 QYGFVRACLRRLVPPGLMGSRHNRRLRNTKFTSLGKHAFLSLOELTWMGSRDCAM 576
482 QYGFVRACLRRLVPPGLMGSRHNRRLRNTKFTSLGKHAFLSLOELTWMGSRDCAM 541
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637 VMSKLSQSIGIRQHLKRVQLRELSAEVROHREARPAALLTSRLRFPKPDGLRPIYNDYV 696
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757 QDPPELYFVKVDVTGAYDTIPQDRLEVIASIIKPONTYCVRRYAVYOKAHGVRRAF 816
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1177 NPALPSDEFTIID 1189
1142 NPALPSDEFTIID 1154
RESULT 4
ID US-08-912-951-325 STANDARD: PRT: 1189 AA.
AC xxxxxx
Sequence 325, Application US/08912951
GENERAL INFORMATION:
APPLICANT: Cech, Thomas R.
APPLICANT: Lindner, Joachim
APPLICANT: Nakamura, Toru

CC APPLICANT: Chapman, Karen B.
 CC APPLICANT: Morin, Gregg B.
 CC APPLICANT: Harley, Calvin
 CC APPLICANT: Andrews, William H.
 CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
 CC TITLE OF INVENTION: THERAPEUTIC METHODS
 CC NUMBER OF SEQUENCES: 335
 CC CORRESPONDENCE ADDRESS:
 CC ADDRESSEE: Townsend and Townsend and Crew LLP
 CC STREET: Two Embarcadero Center, 8th Floor
 CC CITY: San Francisco
 CC STATE: California
 CC COUNTRY: United States of America
 CC ZIP: 94111
 CC COMPUTER READABLE FORM:
 CC MEDIUM TYPE: Floppy disk
 CC COMPUTER: IBM PC compatible
 CC OPERATING SYSTEM: PC-DOS/MS-DOS
 CC SOFTWARE: Patent In Release #1.0, Version #1.30
 CC CURRENT APPLICATION DATA:
 CC APPLICATION NUMBER: US/08/912,951
 CC FILING DATE: 14-AUG-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/854,050
 CC FILING DATE: 09-MAY-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/851,843
 CC FILING DATE: 06-MAY-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/846,017
 CC FILING DATE: 25-APR-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/844,419
 CC FILING DATE: 18-APR-1997
 CC CLASSIFICATION: 435
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/724,643
 CC FILING DATE: 01-OCT-1996
 CC CLASSIFICATION: 435
 CC ATTORNEY/AGENT INFORMATION:
 CC NAME: Apple, Randolph T.
 CC REGISTRATION NUMBER: 36,429
 CC REFERENCE/DOCKET NUMBER: 015389-002600US
 CC TELECOMMUNICATION INFORMATION:
 CC TELEPHONE: (415) 576-0200
 CC TELEFAX: (415) 576-0300
 CC INFORMATION FOR SEQ ID NO: 325:
 CC SEQUENCE CHARACTERISTICS:
 CC LENGTH: 1189 amino acids
 CC TYPE: amino acid
 CC STRANDEDNESS:
 CC TOPOLOGY: linear
 CC MOLECULE TYPE: protein
 CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
 SQ
 Query Match 99.8%; Score 8607; DB 14; Length 1189;
 Best Local Similarity 99.98; Pred. No. 0.00e+00;
 Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 122 GFALLDARGGPEAFETTSVRSYLPTNTVTDALRGSGAMGLLRRVGDVYLHLLARCALF 181
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 QY 602 VMSKLOSIGIRQHLKRVOLRELSAEVNRQHRARALLTSRLRFTPKPGGLRPYNNMDV 661
 DB 697 VGARTFRREKRAERLTSRYKALFSVLTNERARPPGLGASVGLDDIHAWRTFVLRYVA 756
 QY 662 VGARTFRREKRAERLTSRYKALFSVLTNERARPPGLGASVGLDDIHAWRTFVLRYVA 721
 DB 757 QDPPELYFKVVDVTGAYDTIPQDRLEVIASIIKRPNTYCVRRYAVVQKAAHGVKRAK 816
 QY 722 QDPPELYFKVVDVTGAYDTIPQDRLEVIASIIKRPNTYCVRRYAVVQKAAHGVKRAK 781
 DB 817 KSHVSTLTDLOPYMRFVAHLOETSPLRDAVYIEOSSISNESSGIFDYFLRPMCHAAVR 876
 QY 782 KSHVSTLTDLOPYMRFVAHLOETSPLRDAVYIEOSSISNESSGIFDYFLRPMCHAAVR 841
 DB 877 IGRKSVYOCQGIPOGSIITLCSLCYGDMEKRLRAGIRDDLLRLVDDFLLVTPHLLH 936
 QY 842 IGRKSVYOCQGIPOGSIITLCSLCYGDMEKRLRAGIRDDLLRLVDDFLLVTPHLLH 901
 DB 937 AKFTLTLVRCVPEYGCVVNLKRTVYVNFVEDEALGTAFAVQMPAHGLEPPMCGLLDTRT 996
 QY 902 AKFTLTLVRCVPEYGCVVNLKRTVYVNFVEDEALGTAFAVQMPAHGLEPPMCGLLDTRT 961
 DB 997 LEVQSDSYSTARTSIRASLTFNRGRAGNMRKRLFGVLRKLSHSLFDLDQVNSLOTVCT 1056
 QY 962 LEVQSDSYSTARTSIRASLTFNRGRAGNMRKRLFGVLRKLSHSLFDLDQVNSLOTVCT 1021
 DB 1057 NIYKILLQAYRFFHACVLDLPFHQOYWKNPTEFLRYSPTASISLCAKNAKNGMSLGAK 1116
 QY 1022 NIYKILLQAYRFFHACVLDLPFHQOYWKNPTEFLRYSPTASISLCAKNAKNGMSLGAK 1081
 DB 1117 GAAGPLPSEAVOMLCHQAFLLKLRHRYTVYVLLGSLRTAQTQSLSKRLPGTTLTALAANA 1176
 QY 1082 GAAGPLPSEAVOMLCHQAFLLKLRHRYTVYVLLGSLRTAQTQSLSKRLPGTTLTALAANA 1141
 DB 1177 NPALPSDEFTIID 1189
 QY 1142 NPALPSDEFTIID 1154
 RESULT 5
 ID US-08-911-312-34 STANDARD; PRT; 1189 AA.

XX
AC
XX
XX
XX
DE
XX

Sequence 34, Application US/08911312

Sequence 34, Application US/08911312

GENERAL INFORMATION:
APPLICANT: Cech, Thomas R.
APPLICANT: Lingner, Joachim
APPLICANT: Nakamura, Toru
APPLICANT: Chapman, Karen B.
APPLICANT: Motin, Gregg B.
APPLICANT: Hatley, Calvin B.
APPLICANT: Andrews, William
TITLE OF INVENTION: Telomerase Reverse Transcriptase
NUMBER OF SEQUENCES: 170
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP: 94111-3834

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/911,312
FILING DATE: 14-AUG-1997

CLASSIFICATION: 536

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Einhorn, Gregory P.
REGISTRATION NUMBER: 38,440

REFERENCE/DOCKET NUMBER: 015389-002500US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ. ID NO. 34:
SEQUENCE CHARACTERISTICS:
LENGTH: 1189 amino acids
TYPE: amino acid

STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE 1189 AA: 133179 MW: 7256545 CN:

Query Match 99.8%; Score 8607; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;

	Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 37	ASTORCVLLRTWEALAPATPAMPAPRCRAVRSLSSHYREVLPLATFYRLPGPOGRWV 96
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Db 97	QRGDPAAFRALVAQCVCVPMDBAPPPAASFRVOSCLKELVAVLQRLCERGAKNVLA 156
Qy 62	QRGDPAAFRALVAQCVCVPMDBAPPPAASFRVOSCLKELVAVLQRLCERGAKNVLA 121
Db 157	GFLLDGGARCGPEAFETTSVRSYLPNTVDALGSGAWGILLRVDVDVYVHLACALF 216
Qy 122	GFLLDGGARCGPEAFETTSVRSYLPNTVDALGSGAWGILLRVDVDVYVHLACALF 181
Db 217	VLYAPSCAYVCGPPLYVQLGAATQARPPHASPGRRLGGERAMNNSVREAGVPLGAP 276
Qy 182	VLYAPSCAYVCGPPLYVQLGAATQARPPHASPGRRLGGERAMNNSVREAGVPLGAP 241
Db 277	GARRRGASASRLPLKRRPRGAAPERTPVQGSMAHPGRTGSDGFCVVSAPRA 336
Qy 242	GARRRGASASRLPLKRRPRGAAPERTPVQGSMAHPGRTGSDGFCVVSAPRA 301
Db 337	EEATSLGALSGTRHSHPSVGRHHAAPETSRPPMDTPCPVYAETKHFLYSSGDKE 396
Qy 302	EEATSLGALSGTRHSHPSVGRHHAAPETSRPPMDTPCPVYAETKHFLYSSGDKE 361
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Qy 362	QLRPSFLLSLRSLTGARRLVETIFLGSNPMWPGTPRRLLPRLPORHYWQMRPLFLELGN 421
Db 457	HAQCPYVLLKTCPLRAAVTPAAGCAKPKPGSVAAPDEEDTPRRLLVQLLRHSSPM 516
Qy 422	HAQCPYVLLKTCPLRAAVTPAAGCAKPKPGSVAAPDEEDTPRRLLVQLLRHSSPM 481
Db 517	QYVGFVACLRILVPPGLMGSRINERFLNFKFSIGKHAHLSLOELTWKMSVSDCAW 576
Qy 482	QYVGFVACLRILVPPGLMGSRINERFLNFKFSIGKHAHLSLOELTWKMSVSDCAW 541
Db 577	LRRSPGVGCYPAAEHLREELIAKFLHMLMSVYVVELLSFEYVETTRQKNRLFYRKS 636
Qy 542	LRRSPGVGCYPAAEHLREELIAKFLHMLMSVYVVELLSFEYVETTRQKNRLFYRKS 601
Db 637	VMSKLOSIGIRQLKRYQLRELSAEVQRHREKAPALLSRFLFTRKPDGLRYVMKDY 696
Qy 602	VMSKLOSIGIRQLKRYQLRELSAEVQRHREKAPALLSRFLFTRKPDGLRYVMKDY 661
Db 697	VGARTFRERKARRLTSRYVALFSVLYNTERARPPGLLGASVLDLIDIHRAWRFFVLR 756
Qy 662	VGARTFRERKARRLTSRYVALFSVLYNTERARPPGLLGASVLDLIDIHRAWRFFVLR 721
Db 757	QDPPPELYEVKVDVTAAYDTIPQDRLTEVYASIIKPNQTYCVARYAVOAKAAGHYRKA 816
Qy 722	QDPPPELYEVKVDVTAAYDTIPQDRLTEVYASIIKPNQTYCVARYAVOAKAAGHYRKA 781
Db 817	KSHVSLTLDQPYMROFVAHLQETSPLRDVAVYEOSSSLNEASGGLFVFLRMCHHA 876
Qy 782	KSHVSLTLDQPYMROFVAHLQETSPLRDVAVYEOSSSLNEASGGLFVFLRMCHHA 841
Db 877	IRKSYVOCGIPQGSILSTLCSLCYGMENKLFAGIRRDGILLRLVYDDELVTYHHLN 936
Qy 842	IRKSYVOCGIPQGSILSTLCSLCYGMENKLFAGIRRDGILLRLVYDDELVTYHHLN 901
Db 937	AKTFELTLVAGVEYGCYVNLAKTYVNFPEVEDALGTAFAVQPAHGLFPWCGILLDT 996
Qy 902	AKTFELTLVAGVEYGCYVNLAKTYVNFPEVEDALGTAFAVQPAHGLFPWCGILLDT 961
Db 997	LEVQSDYSYARTSISASLTNNNGFAGRMKRLGVLRLKCHSLFDLQVNSLOTVC 1056
Qy 962	LEVQSDYSYARTSISASLTNNNGFAGRMKRLGVLRLKCHSLFDLQVNSLOTVC 1021
Db 1057	NIYKILLQAVRPHACVLOLPHQOYWKNPTEFLRVISPTASLCYSITLAKNAGMSLGAK 1116
Qy 1022	NIYKILLQAVRPHACVLOLPHQOYWKNPTEFLRVISPTASLCYSITLAKNAGMSLGAK 1081

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QY 1082 GAAGPSPSAVOMLCHQATLKLTRRVTYVPLGSLRTAQTOLSKRLPCTITTALEAAA 1141
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ID US-08-911-312A-33 STANDARD: PRT: 1200 AA.
AC xxxxxx
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DE Sequence 33, Application US/08911312A
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CC Sequence 33, Application US/08911312A
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent In Release #1.0, Version #1.30
CC
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200

CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 33:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA; 134322 MW; 7387257 CN;
SQ
Query Match 99.8%; Score 8607; DB 14; Length 1200;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 48 ASTORCVLLRTWEALAPATPAMPRAPRCAVBSLSRSHREVLPATFEVRLGPOGWRV 107
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DB 168 GFALDGAAGCPPEAFTTSVRSVLPNTVDALRGSGAMGLLRVGDVYLHLLARCALE 227
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QY 122 GFALDGAAGCPPEAFTTSVRSVLPNTVDALRGSGAMGLLRVGDVYLHLLARCALE 181
DB 228 VLVAPSCAYVCGPPLVQLGAATQARPAPHASGPRRLCERAMNHSVEAGVPLGLPAP 287
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QY 182 VLVAPSCAYVCGPPLVQLGAATQARPAPHASGPRRLCERAMNHSVEAGVPLGLPAP 241
DB 288 GARRRGGSASRSLPLPKRRRGAAPPERTPVGQGSMAHPGRTGSDGFCVVSAPARA 347
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QY 242 GARRRGGSASRSLPLPKRRRGAAPPERTPVGQGSMAHPGRTGSDGFCVVSAPARA 301
DB 348 EPEATSLEGALSGRSHSPVSGROHNAHPSTSRPPMPTPCPPVYAEKHFVYSSGDE 407
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QY 422 HQCPYGVLLKTHCPRLRAAVTPAAGYCAKPOGSAABEEDTDRLVOLLROHSSPW 481
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QY 542 LRRSPGVGCPAAEHRRLREIILAKFLHMLMSYVVELLSFVYETETPOKNRLFYRKS 601
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DB 708 VGARTRFRREKRAERLTSRKALFSVLYNTERARPPGLGASVGLDIDHMAKTFVLRVA 767
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Cc	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/844,419
CC	FILING DATE: 18-APR-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/846,017
CC	FILING DATE: 25-APR-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/851,843
CC	FILING DATE: 06-MAY-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/854,050
CC	FILING DATE: 09-MAY-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/911,312
CC	FILING DATE: 14-AUG-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/912,951
CC	FILING DATE: 14-AUG-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: US 08/915,503
CC	FILING DATE: 14-AUG-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: WO PCT/US97/17618
CC	FILING DATE: 01-OCT-1997
CC	PRIOR APPLICATION DATA:
CC	APPLICATION NUMBER: WO PCT/US97/17885
CC	FILING DATE: 01-OCT-1997
CC	ATTORNEY/AGENT INFORMATION:
CC	NAME: Apple, Randolph Ted
CC	REGISTRATION NUMBER: 36,429
CC	REFERENCE/DOCKET NUMBER: 015389-002610US
CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: (415) 576-0200
CC	TELEFAX: (415) 576-0300
CC	INFORMATION FOR SEQ ID NO: 612:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 1200 amino acids
CC	TYPE: amino acid
CC	STRANDEDNESS:
CC	TOPOLOGY: linear
CC	MOLECULE TYPE: protein
CC	FEATURE:
CC	NAME/KEY: Protein
CC	LOCATION: 1..1200
CC	OTHER INFORMATION: /note= "fusion protein composed of His6
CC	OTHER INFORMATION: and Anti-Xpress tags, enterokinase
CC	OTHER INFORMATION: cleavage site and full length hTNT
CC	OTHER INFORMATION: protein"
SQ	SEQUENCE 1200 AA; 134322 MW; 7387257 CN;
Query Match	99.8%; Score 8607; DB 14; Length 1200;
Best Local Similarity	99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative	0; Mismatches 1; Indels 0; Gaps 0
Dd	48 ASTORCVLLRTWEALAPATPMPAPRCRAVRSLLRSHYREVLPLATFFRRRLGFGGRRLV 107
Oy	2 ASAGQCIVLLRTWEALAPATPMPAPRCRAVRSLIRSHYREVLPLATFFVRRLGPGQRRLV 61
Dd	108 QRGDPAARLAVAOCLVCPWDARRPPAASFRQVSCLKELYAAVLDLRLCRGAKKNYLAF 167
Oy	62 QRGDPAARLAVAOCLVCPWDARRPPAASFROYSCIKELYAAVLDLRLCERGAKNYLAF 121
Dd	168 GFALLDGARGGPEAEFTSVRSYSYPNVTDLNRSGAMGLLRVGDDVLAHLARCALF 227
Oy	122 GFALLDGARGGPEAEFTSVRSYSYPNVTDLNRSGAMGLLRKRVGDVLAHLARCALF 161
Dd	228 VLVAPSCAYQVCGBPPLYOLGAATOARPAPHASGPRRLIGCERANNHSVREAGVPLGPAP 287
Oy	162 VLVAPSCAYQVCGBPPLYOLGAATOARPAPHASGPRRLIGCERANNHSVREAGVPLGLPAP 241
Dd	288 GARRRGSASSLSLPKPKRRGAADEPERITVGGGSMAHPERTGPSDRGFCVVSPARPA 347
Oy	242 GARRRGSASSLSLPKPKRRGAADEPERTVGGGSMAHPERTGPSDRGFCVVSPARPA 301

[illegible]

```
CC APPLICANT: Cech, Thomas R.  
CC APPLICANT: Lingner, Joachim  
CC APPLICANT: Nakamura, Toru  
CC APPLICANT: Chapman, Karen B.  
CC APPLICANT: Morin, Gregg B.  
CC APPLICANT: Harley, Calvin  
CC APPLICANT: Andrews, William H.  
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT:  
CC TITLE OF INVENTION: THERAPEUTIC METHODS  
CC NUMBER OF SEQUENCES: 335  
CC CORRESPONDENCE ADDRESS:  
CC ADDRESSEE: Townsend and Townsend and Crew LLP  
CC STREET: Two Embarcadero Center, 8th Floor  
CC CITY: San Francisco  
CC STATE: California  
CC COUNTRY: United States of America  
CC ZIP: 94111  
CC COMPUTER READABLE FORM:  
CC MEDIUM TYPE: Floppy disk  
CC COMPUTER: IBM PC compatible  
CC OPERATING SYSTEM: PC-DOS/MS-DOS  
CC SOFTWARE: PatentIn Release #1.0, Version #1.30  
CC CURRENT APPLICATION DATA:  
CC APPLICATION NUMBER: US/08/912,951  
CC FILING DATE: 14-AUG-1997  
CC CLASSIFICATION: 435  
CC PRIOR APPLICATION DATA:  
CC APPLICATION NUMBER: US 08/854,050  
CC FILING DATE: 09-MAY-1997  
CC CLASSIFICATION: 435  
CC PRIOR APPLICATION DATA:  
CC APPLICATION NUMBER: US 08/851,843  
CC FILING DATE: 06-MAY-1997  
CC CLASSIFICATION: 435  
CC PRIOR APPLICATION DATA:  
CC APPLICATION NUMBER: US 08/846,017  
CC FILING DATE: 25-APR-1997  
CC CLASSIFICATION: 435  
CC PRIOR APPLICATION DATA:  
CC APPLICATION NUMBER: US 08/724,643  
CC FILING DATE: 01-OCT-1996  
CC CLASSIFICATION: 435  
CC ATTORNEY/AGENT INFORMATION:  
CC NAME: Apple, Randolph T.  
CC REGISTRATION NUMBER: 36,429  
CC REFERENCE/DOCKET NUMBER: 015389-002600US  
CC TELECOMMUNICATION INFORMATION:  
CC TELEPHONE: (415) 576-0200  
CC TELEFAX: (415) 576-0300  
CC INFORMATION FOR SEQ ID NO: 324:  
CC SEQUENCE CHARACTERISTICS:  
CC LENGTH: 1200 amino acids  
CC TYPE: amino acid  
CC STRANDEDNESS:  
CC TOPOLOGY: linear  
CC MOLECULE TYPE: protein  
CC SEQUENCE: 1200 AA; 134332 MW; 7387257 CN;  
  
Query Match 99.8%; Score 8607; DB 14; Length 1200;  
Best Local Similarity 99.9%; Pred. No. 0.00e+00;  
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
  
Db 48 ASTRGVLLRTWEALADATPMPRAPEPCRAVRSLRSYHREVLPLATFYRRLGPGGMRIV 107  
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0Y 2 ASQGRCVILRTWEALADATPAMPRAPRCRAVRSLRSYHREVLPLATFYRRLGPGGMRIV 61  
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6Z QRGDPAFRALVAQCICVPMWDARPPPAASFFQVYSTLKLTVARVIQRCLCEKAKNVLAFL 121
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Dd	168	GFALDDGRRGPPPEFFTSVSVSYLPNTYTDLRSGGAMGLLRVGDVYVHLIARCALF	227
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Dd	228	VLVAPSCAYQVCGPPLXYOLGAATQARPPPHASGPRRRLGCBRANMHSVREAGVPLGPAP	287
Qy	182	VLVAPSCAYQVCGPPLXYOLGAATQARPPPHASGPRRRLGCBRANMHSVREAGVPLGPAP	241
Dd	288	GARRGGSASLSLPKPKRRGGAPEPERTVGGGSMANHPORTGSPDRGCVVSPARA	347
Qy	242	GARRGGSASLSLPKPKRRGGAPEPERTVGGGSMANHPORTGSPDRGCVVSPARA	301
Dd	348	BEATSLEGALSGTRHSHSVGRQHAGBPSTSRPPRPDTCPPPVYAETKHFLLSSDKE	407
Qy	302	BEATSLEGALSGTRHSHSVGRQHAGBPSTSRPPRPDTCPPPVYAETKHFLLSSDKE	361
Dd	408	QLRPSFLLSSLRPSLTGARLVETIFLGSBPMWGTPRRLPRLORYWOMRPLFLELGN	467
Qy	362	QLRPSFLLSSLRPSLTGARLVETIFLGSBPMWGTPRRLPRLORYWOMRPLFLELGN	421
Dd	468	HAOCYGVLLKTHCPRLRAAYVPAAGVCAKREKPOSSVAAPEEDTDPRLYOLLRHSSPM	527
Qy	422	HAOCYGVLLKTHCPRLRAAYVPAAGVCAKREKPOSSVAAPEEDTDPRLYOLLRHSSPM	481
Dd	528	QVYGFVRACLRRLVPRGLMGRHNERREPLRNTKKEISLGNHAKLSLOELTWKMSVRDCAW	587
Qy	482	QVYGFVRACLRRLVPRGLMGRHNERREPLRNTKKEISLGNHAKLSLOELTWKMSVRDCAW	541
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Dd	648	VMSKLSIGIRQHKLRYOLRLELSAEVQHREARPALTSRLEIPKPDGLRPIVNNDDY	707
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Dd	708	VGARTFRREKRAEBRLTSVYKALFVYLTNERARRPGLGASVGLDDITHRAMRTFVLRYRA	767
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Dd	768	QDPPELFFVYVDYTGADTIPODRLFEVIAIIRKPOITYCVRRYAVYQKAAHGVKRAF	827
Qy	722	QDPPELFFVYVDYTGADTIPODRLFEVIAIIRKPOITYCVRRYAVYQKAAHGVKRAF	781
Dd	828	KSHVSTLTDLOPYMKQFVAHLQETSPLDVAVYBQSSLSNEASSGLEDYELREKCHNAVR	887
Qy	782	KSHVSTLTDLOPYMKQFVAHLQETSPLDVAVYBQSSLSNEASSGLEDYELREKCHNAVR	841
Dd	888	IRGKSYVQCCGIIPOGSIILSTLCSLCYCDMKNKLFAGTRRQGLLLRLVDPFLVTPRHLTH	947
Qy	842	IRGKSYVQCCGIIPOGSIILSTLCSLCYCDMKNKLFAGTRRQGLLLRLVDPFLVTPRHLTH	901
Dd	948	AKTEFLRTLVRCVPEVGCYVNLKRTVYVNPVEDELGGAFAQMPAHGHLFPMCGILLTTRT	1008
Qy	902	AKTEFLRTLVRCVPEVGCYVNLKRTVYVNPVEDELGGAFAQMPAHGHLFPMCGILLTTRT	966
Dd	1008	LEVOSDYSSVARTISIRASLTFNRGFKAGRNRRKRLFVYLRLKCHSLFELDLOVNSLQVCT	1068
Qy	962	LEVOSDYSSVARTISIRASLTFNRGFKAGRNRRKRLFVYLRLKCHSLFELDLOVNSLQVCT	1022
Dd	1068	NIYKLLLOAARFNAVCYOLDFHOQWYKNNPFFLRLVISTDASLCYSILKAKNAGMSIGAK	1128
Qy	1022	NIYKLLLOAARFNAVCYOLDFHOQWYKNNPFFLRLVISTDASLCYSILKAKNAGMSIGAK	1082
Dd	1128	GAAGCLPSEAVOWMLCHQAFLLKTLRHRATYVPLRGLSLRTAQTOLSRKLPCTGTTALBAAA	1188
Qy	1082	GAAGCLPSEAVOWMLCHQAFLLKTLRHRATYVPLRGLSLRTAQTOLSRKLPCTGTTALBAAA	1144
Dd	1188	NPALPSPDKTILD 1200	
Qy	1142	NPALPSPDKTILD 1154	

RESULT	ID	10	US-08-974-549-600	STANDARD:	PRT:	1285	AA.
XX	AC	xx	xxxxxx				
XX	DE		Sequence 600, Application US/08974549				
XX	CC		Sequence 600, Application US/08974549				
CC	CC		GENERAL INFORMATION:				
CC	CC		APPLICANT: Cecch, Thomas R.				
CC	CC		APPLICANT: Lindner, Joachim				
CC	CC		APPLICANT: Nakamura, Toru				
CC	CC		APPLICANT: Chapman, Karen B.				
CC	CC		APPLICANT: Morin, Gregg B.				
CC	CC		APPLICANT: Harley, Calvin B.				
CC	CC		APPLICANT: Andrews, William H.				
CC	CC		TITLE OF INVENTION: Human Telomerase Catalytic Subunit				
CC	CC		NUMBER OF SEQUENCES: 726				
CC	CC		CORRESPONDENCE ADDRESS:				
CC	CC		ADDRESSEE: Townsend and Townsend and Crew LLP				
CC	CC		STREET: Two Embarcadero Center, Eighth Floor				
CC	CC		CITY: San Francisco				
CC	CC		STATE: California				
CC	CC		COUNTRY: USA				
CC	CC		ZIP: 94111-3834				
CC	CC		COMPUTER READABLE FORM:				
CC	CC		MEDIUM TYPE: Floppy disk				
CC	CC		COMPUTER: IBM PC compatible				
CC	CC		OPERATING SYSTEM: PC-DOS/MS-DOS				
CC	CC		SOFTWARE: Patent In Release #1.0, Version #1.30				
CC	CC		CURRENT APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US/08/974,549				
CC	CC		FILING DATE: 19-NOV-1997				
CC	CC		CLASSIFICATION: 536				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/724,643				
CC	CC		FILING DATE: 01-OCT-1996				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/844,419				
CC	CC		FILING DATE: 18-APR-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/846,017				
CC	CC		FILING DATE: 25-APR-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/851,843				
CC	CC		FILING DATE: 06-MAY-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/854,050				
CC	CC		FILING DATE: 09-MAY-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/911,312				
CC	CC		FILING DATE: 14-AUG-1997				
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CC	CC		FILING DATE: 14-AUG-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: US 08/915,503				
CC	CC		FILING DATE: 14-AUG-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: WO PCT/US97/17618				
CC	CC		FILING DATE: 01-OCT-1997				
CC	CC		PRIOR APPLICATION DATA:				
CC	CC		APPLICATION NUMBER: WO PCT/US97/17885				
CC	CC		FILING DATE: 01-OCT-1997				
CC	CC		ATTORNEY/AGENT INFORMATION:				
CC	CC		NAME: Apple, Randolph Ted				
CC	CC		REGISTRATION NUMBER: 36,429				
CC	CC		REFERENCE/DOCKET NUMBER: 015389-00261005				
CC	CC		TELECOMMUNICATION INFORMATION:				
CC	CC		TELEPHONE: (415) 576-				

CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 600:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1285
CC OTHER INFORMATION: /note="fusion protein composed of
CC OTHER INFORMATION: enterokinase cleavable, His tagged
CC OTHER INFORMATION: thioedoxin moiety and full length hprt"
CC SEQUENCE 1285 AA: 143529 MW: 8449280 CN:

Query Match 99.8%; Score 8607; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

D 133 ASTORCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPLATFVRRLGPGMWRLV 192
Q 2 ASGRCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPLATFVRRLGPGMWRLV 61
D 193 ORGDPAAFRALVAOCVCPMDAPRPPAPSPROYSCLEKELARVLOKCEGAKNVLA 252
Q 62 ORGDPAAFRALVAOCVCPMDAPRPPAPSPROYSCLEKELARVLOKCEGAKNVLA 121
D 253 GFALLDARGGPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRGDDVYLHLLARCALF 312
Q 122 GFALLDARGGPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRGDDVYLHLLARCALF 181
D 313 VLVAPSCAYQVCGPPLVLOGAATQARPPHASGPRRLGCEERAMNHVREAGVPLGDPAP 372
Q 182 VLVAPSCAYQVCGPPLVLOGAATQARPPHASGPRRLGCEERAMNHVREAGVPLGDPAP 241
D 373 GARRGGASASISLPKPRRGAPEPERTPGOGSMAHPGTRGSPRGFCVVPAPAPA 432
Q 242 GARRGGASASISLPKPRRGAPEPERTPGOGSMAHPGTRGSPRGFCVVPAPAPA 301
D 433 BEATSLLEGALSGTRSHSHSVGRQHAGAPSTSRPPRPMDPCPPYAEKTHELYSSGDKE 492
Q 302 BEATSLLEGALSGTRSHSHSVGRQHAGAPSTSRPPRPMDPCPPYAEKTHELYSSGDKE 361
D 493 QLRPSFLLSLRPSLTGARRLVETIFLGSRPWMPGTPRRLLPQRYQMRLPTELLIGN 552
Q 362 QLRPSFLLSLRPSLTGARRLVETIFLGSRPWMPGTPRRLLPQRYQMRLPTELLIGN 421
D 553 HAOCYGVLLKTHCHPLRAAVTPAAGVCAKREKQGSVAAPPEEDTPRRLLYQULLRGHSSPW 612
Q 422 HAOCYGVLLKTHCHPLRAAVTPAAGVCAKREKQGSVAAPPEEDTPRRLLYQULLRGHSSPW 481
D 613 QYVGFVRACLRVLPPGMLGSRHNERFLRNTKKEISLGKNAKLSLOELTWKMSYRDCAW 672
Q 482 QYVGFVRACLRVLPPGMLGSRHNERFLRNTKKEISLGKNAKLSLOELTWKMSYRDCAW 541
D 673 LRRSGVGCVPAAERLEBEILAKLHMLMSYVVVELLRSFYYVETTPQKNRLFYKRS 732
Q 542 LRRSGVGCVPAAERLEBEILAKLHMLMSYVVVELLRSFYYVETTPQKNRLFYKRS 601
D 733 VMSKIOSIGIRHOKLRVOLRELSEAEVROHREARPALITSRLRFPKPDGLRPYNNMYV 792
Q 602 VMSKIOSIGIRHOKLRVOLRELSEAEVROHREARPALITSRLRFPKPDGLRPYNNMYV 661
D 793 VGARTFRREKRAERLTSVKALFSYLVNTERARPPGLIGASVGLDDIRAMTFVLYARA 852
Q 662 VGARTFRREKRAERLTSVKALFSYLVNTERARPPGLIGASVGLDDIRAMTFVLYARA 721
D 853 QDPPELTVFVAVDTGAYDTIPQDRLEVIASIIKPQNTVCYRRYAVVQKAAHGVKRAF 912
Q 722 QDPPELTVFVAVDTGAYDTIPQDRLEVIASIIKPQNTVCYRRYAVVQKAAHGVKRAF 781
D 913 KSHVSTLDDLPYMQFAHLOETSPRLDAVYIEOSSSLNESSGLFDVFLRFMKHNAVR 972

Q 782 KSHVSTLDDLPYMQFAHLOETSPRLDAVYIEOSSSLNESSGLFDVFLRFMKHNAVR 841
D 973 IRGKSYVOCQGIPOGSIITLCLSLCYGDMENKLFAGIRBDGLLRVVDPLVTPHLTH 1032
Q 842 IRGKSYVOCQGIPOGSIITLCLSLCYGDMENKLFAGIRBDGLLRVVDPLVTPHLTH 901
D 1033 AKTFLRLVRCVPEPGCVNLRKTVVNFVVEDEALGTAAYQMPAHGLFPWCGLLDTRT 1092
Q 902 AKTFLRLVRCVPEPGCVNLRKTVVNFVVEDEALGTAAYQMPAHGLFPWCGLLDTRT 961
D 1093 LEVSDSYVARTSIRASTFNRGFKGRNMRRKLFGLRLKCHSLFLDLOVNSLOVCT 1152
Q 962 LEVSDSYVARTSIRASTFNRGFKGRNMRRKLFGLRLKCHSLFLDLOVNSLOVCT 1021
D 1153 NIYKILLQAYRFACVQLQLEPHQOVKNPTFFLRVVISDTFASLCYSILKAKNAGMSIGAK 1212
Q 1022 NIYKILLQAYRFACVQLQLEPHQOVKNPTFFLRVVISDTFASLCYSILKAKNAGMSIGAK 1081
D 1213 GAAGPLPSEAVQMLCHQAFLLKTRHRVTVYPLIGSLRTAQTOLSKRLPGTTTALAEEAA 1272
Q 1082 GAAGPLPSEAVQMLCHQAFLLKTRHRVTVYPLIGSLRTAQTOLSKRLPGTTTALAEEAA 1141
D 1273 NPALPSDEKTIID 1285
Q 1142 NPALPSDEKTIID 1154

RESULT 11
ID US-08-912-951-314 STANDARD; PRT: 1285 AA.
AC xxxxxx
XX
DT
XX
DE Sequence 314, Application US/08912951
CC Sequence 314, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESS: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435

QY	602	VMSLOSIGIRQHKRRQLOKRELSAEVROHREKRPMLTSSRLNFIKPDGCELPYNNMIV	661
Db	793	VGATFRFRERARERLTSRVYALFSVYNTBRARPPGLGASVGLDDIRHAWRTFVLRYRA	852
QY	662	VGATFRFRERARERLTSRVYALFSVYNTBRARPPGLGASVGLDDIRHAWRTFVLRYRA	721
Db	853	QDPPELPEYKVDVTGAYDITIPQDRUTEVYIASIKPQNTYCVRRYAVVOKAAHGVKRAAF	912
QY	722	QDPPELPEYKVDVTGAYDITIPQDRUTEVYIASIKPQNTYCVRRYAVVOKAAHGVKRAAF	781
Db	913	KSHSTLTLDQPIYRQPVNAHLOETSPLRDAVYIEOSSSLNEASSGLEDVYFLRFKCHHAVR	972
QY	782	KSHSTLTLDQPIYRQPVNAHLOETSPLRDAVYIEOSSSLNEASSGLEDVYFLRFKCHHAVR	841
Db	973	IRGSYVQCCGIRPOGSLTSLTLCSLCYGMEKNLFPAGIRDGLLRVLDVDFLYTPHLTH	1033
QY	842	IRGSYVQCCGIRPOGSLTSLTLCSLCYGMEKNLFPAGIRDGLLRVLDVDFLYTPHLTH	901
Db	1033	AKTEFLRTLVGVEYEGCVVNLKRTVYVNFVEDEALGGAFAVQMPAHGLEPWCGLLDDRT	1092
QY	902	AKTEFLRTLVGVEYEGCVVNLKRTVYVNFVEDEALGGAFAVQMPAHGLEPWCGLLDDRT	961
Db	1093	LEVOSDYSSARTSIRASLTSPNNGFFAGRNMRKKLFVYLRKCHSLFDLDQVNSIQTYCT	1155
QY	962	LEVOSDYSSARTSIRASLTSPNNGFFAGRNMRKKLFVYLRKCHSLFDLDQVNSIQTYCT	1022
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QY	1022	NIYVILLQVYRFPACVLOLPFHQOVWKNPTEFLRYISDTASLCYSLKARNAGSLGAK	1081
Db	1213	GAAGPLPSEAVOWMLCHOAFELKLTTRRVTVYVPLGSLRTAQOLSKRLPGTTLTLEAA	1272
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Db	1273	NPALPSPDKTILD 1285	
QY	1142	NPALPSPDKTILD 1154	
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ID	US-08-911-312A-32	STANDARD:	PRT: 1285 AA.
XX	xxxxxx		
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DE	Sequence 32, Application US/08911312A		
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CC	Sequence 32, Application US/08911312A		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Langner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William		
CC	TITLE OF INVENTION: Telomerase Reverse Transcriptase		
CC	NUMBER OF SEQUENCES: 171		
CC	CORRESPONDENCE ADDRESS:		
CC	ADDRESSEE: Townsend and Townsend and Crew LLP		
CC	STREET: Two Embarcadero Center, Eighth Floor		
CC	CITY: San Francisco		
CC	STATE: California		
CC	COUNTRY: USA		
CC	ZIP: 94111-3834		
CC	COMPUTER READABLE FORM:		
CC	MEDIUM TYPE: Floppy disk		
CC	COMPUTER: IBM PC compatible		
CC	OPERATING SYSTEM: PC-DOS/MS-DOS		
CC	SOFTWARE: PatentIn Release #1.0, Version #1.30		
CC	CURRENT APPLICATION DATA:		

CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Elnhorn, Gregory P.
CC REGISTRATION NUMBER: 36,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 32:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1285 AA: 143529 MW: 8449280 CN:
SQ
Query Match 99.8%; Score 8607; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 133 ASTORCVLRTWEALAPTPMPAPRCRAVRSLSRSTRREVLPATRVRLGPOGMRLV 192
Qy 2 ASGRCVLLRTWEALAPTPMPAPRCRAVRSLSRSTRREVLPATRVRLGPOGMRLV 61
Db 193 QRGDPAFRAALVAOCLVCPMDARPPAPSFROYSCLELVARVLRGCGAKNVLA 252
Qy 62 QRGDPAFRAALVAOCLVCPMDARPPAPSFROYSCLELVARVLRGCGAKNVLA 121
Db 253 GFALLDARGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGDVVLHLLARCALF 312
Qy 122 GFALLDARGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGDVVLHLLARCALF 181
Db 313 VLVAPSCAYVCGPRLYLGAATQARPPHASGRRRLGRCERAMHSTRKGVPLGLDPA 372
Qy 182 VLVAPSCAYVCGPRLYLGAATQARPPHASGRRRLGRCERAMHSTRKGVPLGLDPA 241
Db 373 GARRRGGSASRLPLPKPRRGCAPEPERTVVGOGSMAHPRTGSPSRGCVVSPARPA 432
Qy 242 GARRRGGSASRLPLPKPRRGCAPEPERTVVGOGSMAHPRTGSPSRGCVVSPARPA 301
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Qy 302 EEATSLGEGALSGTRHSHSVGRQHHAGPPSTSRPPMDTDCPPYATETKHFLLVSSGDKE 361
Db 493 QLRSEFLLSARPSLTGRRRLVETIFLGSRRPMWGTTPRRRLRLQRYQAMPLELLIGN 552
Qy 362 QLRSEFLLSARPSLTGRRRLVETIFLGSRRPMWGTTPRRRLRLQRYQAMPLELLIGN 421
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Qy 422 HAQCPYGLTKHCPPLRAAVTPAAGVCAREKPGQSVAPPEEDDTPRRLLVQLLRQHSHPW 481
Db 613 QVGFVBAQLRLVPPGLMGSRHNERFLLNTKFFISLGHAKLSLOELTWKMSVRDCAN 672
Qy 482 QVGFVBAQLRLVPPGLMGSRHNERFLLNTKFFISLGHAKLSLOELTWKMSVRDCAN 541
Db 673 LRRSPGVGCVPAAEHRLREELIAKFLHMLSVYVELLRSEFFVYETTFQKNRLEFYRKS 732
Qy 542 LRRSPGVGCVPAAEHRLREELIAKFLHMLSVYVELLRSEFFVYETTFQKNRLEFYRKS 601
Db 733 VMSLQSIGIRHLLKRVQLRELSEAVROHREARPALTLTSLRTPRPGDLRPVNDVY 792
Qy 602 VMSLQSIGIRHLLKRVQLRELSEAVROHREARPALTLTSLRTPRPGDLRPVNDVY 661
Db 793 VGARTFRERKRAERLTSSRVNALSFLNTERARPRGLGASVGLDDIHRAMRTFVLNRA 852
Qy 662 VGARTFRERKRAERLTSSRVNALSFLNTERARPRGLGASVGLDDIHRAMRTFVLNRA 721
Db 853 QDPPELIFYKVDVTGAYDTIPQDLTEVIASITKPONTYCVRRYAVVQRAAGHVRKAF 912
Qy 722 QDPPELIFYKVDVTGAYDTIPQDLTEVIASITKPONTYCVRRYAVVQRAAGHVRKAF 781
Db 913 KSHVSTLTDLPYMRQPVAAHLOETSPURDAVYIEOSSLSNEASSGLEDFVLRFCCHAVR 972
Qy 782 KSHVSTLTDLPYMRQPVAAHLOETSPURDAVYIEOSSLSNEASSGLEDFVLRFCCHAVR 841
Db 973 IRGKSVYQCGIPIQSGISLTLCSLCYGDMEKFLAGIRRDGLLRVLDVFLVTPPLTH 1032
Qy 842 IRGKSVYQCGIPIQSGISLTLCSLCYGDMEKFLAGIRRDGLLRVLDVFLVTPPLTH 901
Db 1033 AKTFLRLVNGVPEYGCYVNLKRTVNFVYEDALGSTAFVQMPAHGLFPWCGILLDTRT 1092
Qy 902 AKTFLRLVNGVPEYGCYVNLKRTVNFVYEDALGSTAFVQMPAHGLFPWCGILLDTRT 961
Db 1093 LEVQSDYSYARTSIRASLTFNNGFKAGRMRRKLFGLVLRKCHSLFLDLQVNSIOTVCT 1152
Qy 962 LEVQSDYSYARTSIRASLTFNNGFKAGRMRRKLFGLVLRKCHSLFLDLQVNSIOTVCT 1021
Db 1153 NIVYILLQAVRFHACVQLQPFHQVWKNPTFFLRVVISDTASLCYSILKAKNMGMSIGAK 1212
Qy 1022 NIVYILLQAVRFHACVQLQPFHQVWKNPTFFLRVVISDTASLCYSILKAKNMGMSIGAK 1081
Db 1213 GAAGPLPSEAVQWICHQAFLLKLRHRYVYVPLLSGIRKQOTQSLKRLPGTTTLFALEAA 1272
Qy 1082 GAAGPLPSEAVQWICHQAFLLKLRHRYVYVPLLSGIRKQOTQSLKRLPGTTTLFALEAA 1141
Db 1273 NPALPSDFKTIID 1285
Qy 1142 NPALPSDFKTIID 1154
RESULT 13
ID US-08-911-312-32 STANDARD; PRt: 1285 AA.
AC xxxxxx
DE Sequence 32, Application US/08911312
CC Sequence 32, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:

Sequence 55, Application US/08911312A
GENERAL INFORMATION:
CC APPLICANT: Cecchi, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hatley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC Compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-00250005
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 55:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1407 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE: 1407 AA; 157668 MW; 10134798 CN;
Query Match 99.6%; Score 8590; DB 14; Length 1407;
Best Local Similarity 99.7%; Pred. No. 0.00e+00;
Matches 1150; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

|||||
QY 62 ORGDPAARFALVAOCLVCPWMDARPPAAPSFRVOSCKELVARVLOKRCERGANVLA 121
Db 375 GFALLDAGARGPEAFITTSVRSYLPNTVTDALRGSGAGMLLRGGDVVHLARCALF 434
QY 122 GFALLDAGARGPEAFITTSVRSYLPNTVTDALRGSGAGMLLRGGDVVHLARCALF 181
Db 435 VLVAPSCAYOVCGPPYLOUGAATQARPPHASGERRRLGGERANMHSVREAGVPLGPAP 494
QY 182 VLVAPSCAYOVCGPPYLOUGAATQARPPHASGERRRLGGERANMHSVREAGVPLGPAP 241
Db 495 GARRRGASASISLPKPRRRGAAPERTPVGGSNMHPERTGSPRGCVVSPAPA 554
QY 242 GARRRGASASISLPKPRRRGAAPERTPVGGSNMHPERTGSPRGCVVSPAPA 301
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QY 422 HAOCPTGYVLKTHCPRLRAAVTPAAGVCAAREKPOGSVAAPBEDDPRRLVOLLRQHSPPW 481
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QY 482 QYGVFVACLRRLVPPGLMGRHNERRLNTKFTISLGRKAKISLOELITKMSVROCAM 541
Db 795 LRRSPGVCCVPAAEHRLREELIAKFLHMLMSVYVELLRSEFFYTETFOKNRLFEYRPS 854
QY 542 LRRSPGVCCVPAAEHRLREELIAKFLHMLMSVYVELLRSEFFYTETFOKNRLFEYRPS 601
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QY 602 VMSKOSIGIGIOHLKRYOLRELSEAEVROHREARPALITSLRFLPKRGGRLPYVMNDYV 661
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QY 662 VGARTFRERKRAERLTSVKALFSVLNTERARPPGLGASVGLDDIHRARTEVLRVRA 721
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QY 722 QDPPELTFYVAVDTGATDTIPQDRLEVIASITKPNQTYCVRRKAYVQKAAGHVKRAF 781
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QY 782 KSHVSTLFDLPYMRQFVAHLOETSPLEDAVYVIOSSSLNASSGLPDPVLRMCHNAVR 841
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OY 1142 NPALPSDFKTIID 1154

RESULT - 15
ID US-08-911-312-55 STANDARD; PRT; 1407 AA.
XX
AC xxxxxx
XX
DE
XX
Sequence 55, Application US/08911312
CC
Sequence 55, Application US/08911312
CC
GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC
COMPUTER READABLE FORM:
CC
MEDIUM TYPE: Floppy disk
CC
COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC
CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC
CLASSIFICATION: 536
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC
PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC
ATTORNEY/AGENT INFORMATION:
CC NAME: Elmhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC
INFORMATION FOR SEQ ID NO: 55:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1407 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear

CC MOLECULE TYPE: protein
SQ SEQUENCE 1407 AA; 157668 MW; 10134798 CN;

Query Match 99.6%; Score 8590; DB 14; Length 1407;
Best Local Similarity 99.7%; Pred. No. 0.00e+00;
Matches 1150; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 255 ASTQRCVLLRTWEALAPATPMPAPRCRAVRSLLRSHYREVLPLATFVRRLGPOGRWLV 314
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OY 2 ASGRCVLLRTWEALAPATPMPAPRCRAVRSLLRSHYREVLPLATFVRRLGPOGRWLV 61
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Db 315 ORGDPAAFRALVAOCIVCPMDARPPAPPSFROVSCLEKELVAVLRLCRGAKNYLAF 374
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OY 62 ORGDPAAFRALVAOCIVCPMDARPPAPPSFROVSCLEKELVAVLRLCRGAKNYLAF 121
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OY 362 QLRPSFLLSLRPSLTGARLVETITLGSRPWMPGTPRRLPLQRYQMPLLELIGN 421
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OY 602 VMSKIOSIGIRQHLKRYOLRELSEAEVROHREARPAALLTSRLRFPKPDGLRPIYNNMY 661
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OY 902 AKTEFLRTLVRGVPEYGCVVNLKTYVNFVVEDEALGTAIVQMPAHGLFPWCGLLDTRT 961
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QY 962 LEVQSDYSSYARTSIRASLTENRGFKAGRMRRKLFVGLRKLCHSLFLDLQVNSLQTVCT 1021

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Db 1395 NPALPSDEKTIID 1407

QY 1142 NPALPSDEKTIID 1154

Search completed: Tue Jun 27 15:14:25 2000
 Job time : 187 secs.